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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-94571; File No. SR-CboeBZX-2021-051]

### **Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, to List and Trade Shares of the ARK 21Shares Bitcoin ETF under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares**

March 31, 2022

#### **I. INTRODUCTION**

On July 20, 2021, Cboe BZX Exchange, Inc. (“BZX” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Exchange Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change to list and trade shares (“Shares”) of the ARK 21Shares Bitcoin ETF (“Trust”) under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares. The proposed rule change was published for comment in the *Federal Register* on August 6, 2021.<sup>3</sup>

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> See Securities Exchange Act Release No. 92543 (Aug. 2, 2021), 86 FR 43289. Comments on the proposed rule change can be found at: <https://www.sec.gov/comments/sr-cboebzx-2021-051/srcboebzx2021051.htm>.

On September 15, 2021, pursuant to Section 19(b)(2) of the Exchange Act,<sup>4</sup> the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the proposed rule change.<sup>5</sup> On November 2, 2021, the Commission instituted proceedings under Section 19(b)(2)(B) of the Exchange Act<sup>6</sup> to determine whether to approve or disapprove the proposed rule change.<sup>7</sup> On December 9, 2021, the Exchange filed Amendment No. 1, which amended and replaced the proposed rule change in its entirety, and on December 17, 2021, the Commission published notice of Amendment No. 1 to the proposed rule change.<sup>8</sup> On January 25, 2022, the Commission designated a longer period for Commission action on the proposed rule change, as modified by Amendment No. 1.<sup>9</sup>

This order disapproves the proposed rule change, as modified by Amendment No. 1. The Commission concludes that BZX has not met its burden under the Exchange Act and the Commission's Rules of Practice to demonstrate that its proposal is consistent with the requirements of Exchange Act Section 6(b)(5), and in particular, the requirement

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<sup>4</sup> 15 U.S.C. 78s(b)(2).

<sup>5</sup> See Securities Exchange Act Release No. 92989, 86 FR 52530 (Sept. 21, 2021).

<sup>6</sup> 15 U.S.C. 78s(b)(2)(B).

<sup>7</sup> See Securities Exchange Act Release No. 93510, 86 FR 61820 (Nov. 8, 2021).

<sup>8</sup> See Securities Exchange Act Release No. 93822, 86 FR 73360 (Dec. 27, 2021). Amendment No. 1 to the proposed rule change can be found at: <https://www.sec.gov/rules/sro/cboebzx/2021/34-93822.pdf>.

<sup>9</sup> See Securities Exchange Act Release No. 94055, 87 FR 4980 (Jan. 31, 2022).

that the rules of a national securities exchange be “designed to prevent fraudulent and manipulative acts and practices” and “to protect investors and the public interest.”<sup>10</sup>

When considering whether BZX’s proposal to list and trade the Shares is designed to prevent fraudulent and manipulative acts and practices, the Commission applies the same standard used in its orders considering previous proposals to list bitcoin<sup>11</sup>-based commodity trusts and bitcoin-based trust issued receipts.<sup>12</sup> As the Commission has

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<sup>10</sup> 15 U.S.C. 78f(b)(5).

<sup>11</sup> Bitcoins are digital assets that are issued and transferred via a decentralized, open-source protocol used by a peer-to-peer computer network through which transactions are recorded on a public transaction ledger known as the “bitcoin blockchain.” The bitcoin protocol governs the creation of new bitcoins and the cryptographic system that secures and verifies bitcoin transactions. See, e.g., Amendment No. 1, 86 FR at 73362.

<sup>12</sup> See Order Setting Aside Action by Delegated Authority and Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, To List and Trade Shares of the Winklevoss Bitcoin Trust, Securities Exchange Act Release No. 83723 (July 26, 2018), 83 FR 37579 (Aug. 1, 2018) (SR-BatsBZX-2016-30) (“Winklevoss Order”); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, To Amend NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares) and To List and Trade Shares of the United States Bitcoin and Treasury Investment Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 88284 (Feb. 26, 2020), 85 FR 12595 (Mar. 3, 2020) (SR-NYSEArca-2019-39) (“USBT Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the WisdomTree Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93700 (Dec. 1, 2021), 86 FR 69322 (Dec. 7, 2021) (SR-CboeBZX-2021-024) (“WisdomTree Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the Kryptoin Bitcoin ETF Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93860 (Dec. 22, 2021), 86 FR 74166 (Dec. 29, 2021) (SR-CboeBZX-2021-029) (“Kryptoin Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the Valkyrie Bitcoin Fund Under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares), Securities Exchange Act Release No. 93859 (Dec. 22, 2021), 86 FR 74156 (Dec. 29, 2021) (SR-NYSEArca-2021-31) (“Valkyrie Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the First Trust SkyBridge Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 94006 (Jan. 20, 2022), 87 FR 3869 (Jan. 25, 2022) (SR-NYSEArca-2021-37) (“Skybridge Order”); Order

explained, an exchange that lists bitcoin-based exchange-traded products (“ETPs”) can meet its obligations under Exchange Act Section 6(b)(5) by demonstrating that the exchange has a comprehensive surveillance-sharing agreement with a regulated market of significant size related to the underlying or reference bitcoin assets.<sup>13</sup>

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Disapproving a Proposed Rule Change To List and Trade Shares of the Wise Origin Bitcoin Trust under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 94080 (Jan. 27, 2022), 87 FR 5527 (Feb. 1, 2022) (SR-CboeBZX-2021-039) (“Wise Origin Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the NYDIG Bitcoin ETF Under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares), Securities Exchange Act Release No. 94395 (Mar. 10, 2022), 87 FR 14932 (Mar. 16, 2022) (SR-NYSEArca-2021-57) (“NYDIG Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the Global X Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 94396 (Mar. 10, 2022), 87 FR 14912 (Mar. 16, 2022) (SR-CboeBZX-2021-052) (“Global X Order”). See also Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the SolidX Bitcoin Trust Under NYSE Arca Equities Rule 8.201, Securities Exchange Act Release No. 80319 (Mar. 28, 2017), 82 FR 16247 (Apr. 3, 2017) (SR-NYSEArca-2016-101) (“SolidX Order”). The Commission also notes that orders were issued by delegated authority on the following matters: Order Disapproving a Proposed Rule Change To List and Trade the Shares of the ProShares Bitcoin ETF and the ProShares Short Bitcoin ETF, Securities Exchange Act Release No. 83904 (Aug. 22, 2018), 83 FR 43934 (Aug. 28, 2018) (SR-NYSEArca-2017-139) (“ProShares Order”); Order Disapproving a Proposed Rule Change To List and Trade the Shares of the GraniteShares Bitcoin ETF and the GraniteShares Short Bitcoin ETF, Securities Exchange Act Release No. 83913 (Aug. 22, 2018), 83 FR 43923 (Aug. 28, 2018) (SR-CboeBZX-2018-001) (“GraniteShares Order”); Order Disapproving a Proposed Rule Change To List and Trade Shares of the VanEck Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93559 (Nov. 12, 2021), 86 FR 64539 (Nov. 18, 2021) (SR-CboeBZX-2021-019) (“VanEck Order”).

<sup>13</sup> See USBT Order, 85 FR at 12596. See also Winklevoss Order, 83 FR at 37592 n.202 and accompanying text (discussing previous Commission approvals of commodity-trust ETPs); GraniteShares Order, 83 FR at 43925-27 nn.35-39 and accompanying text (discussing previous Commission approvals of commodity-futures ETPs).

The standard requires such surveillance-sharing agreements since they “provide a necessary deterrent to manipulation because they facilitate the availability of information needed to fully investigate a manipulation if it were to occur.”<sup>14</sup> The Commission has emphasized that it is essential for an exchange listing a derivative securities product to enter into a surveillance-sharing agreement with markets trading the underlying assets for the listing exchange to have the ability to obtain information necessary to detect, investigate, and deter fraud and market manipulation, as well as violations of exchange rules and applicable federal securities laws and rules.<sup>15</sup> The hallmarks of a surveillance-sharing agreement are that the agreement provides for the sharing of information about market trading activity, clearing activity, and customer identity; that the parties to the agreement have reasonable ability to obtain access to and produce requested information; and that no existing rules, laws, or practices would impede one party to the agreement from obtaining this information from, or producing it to, the other party.<sup>16</sup>

In the context of this standard, the terms “significant market” and “market of significant size” include a market (or group of markets) as to which (a) there is a reasonable likelihood that a person attempting to manipulate the ETP would also have to

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<sup>14</sup> See Amendment to Rule Filing Requirements for Self-Regulatory Organizations Regarding New Derivative Securities Products, Securities Exchange Act Release No. 40761 (Dec. 8, 1998), 63 FR 70952, 70959 (Dec. 22, 1998) (“NDSP Adopting Release”). See also Winklevoss Order, 83 FR at 37594; ProShares Order, 83 FR at 43936; GraniteShares Order, 83 FR at 43924; USBT Order, 85 FR at 12596.

<sup>15</sup> See NDSP Adopting Release, 63 FR at 70959.

<sup>16</sup> See Winklevoss Order, 83 FR at 37592-93; Letter from Brandon Becker, Director, Division of Market Regulation, Commission, to Gerard D. O’Connell, Chairman, Intermarket Surveillance Group (June 3, 1994), available at <https://www.sec.gov/divisions/marketreg/mr-noaction/isg060394.htm>.

trade on that market to successfully manipulate the ETP, so that a surveillance-sharing agreement would assist in detecting and deterring misconduct, and (b) it is unlikely that trading in the ETP would be the predominant influence on prices in that market.<sup>17</sup> A surveillance-sharing agreement must be entered into with a “significant market” to assist in detecting and deterring manipulation of the ETP, because a person attempting to manipulate the ETP is reasonably likely to also engage in trading activity on that “significant market.”<sup>18</sup>

Consistent with this standard, for the commodity-trust ETPs approved to date for listing and trading, there has been in every case at least one significant, regulated market for trading futures on the underlying commodity—whether gold, silver, platinum, palladium, or copper—and the ETP listing exchange has entered into surveillance-sharing agreements with, or held Intermarket Surveillance Group (“ISG”) membership in common with, that market.<sup>19</sup> Moreover, the surveillance-sharing agreements have been consistently present whenever the Commission has approved the listing and trading of derivative securities, even where the underlying securities were also listed on national securities exchanges—such as options based on an index of stocks traded on a national

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<sup>17</sup> See Winklevoss Order, 83 FR at 37594. This definition is illustrative and not exclusive. There could be other types of “significant markets” and “markets of significant size,” but this definition is an example that will provide guidance to market participants. See id.

<sup>18</sup> See USBT Order, 85 FR at 12597.

<sup>19</sup> See Winklevoss Order, 83 FR at 37594.

securities exchange—and were thus subject to the Commission’s direct regulatory authority.<sup>20</sup>

Listing exchanges have also attempted to demonstrate that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices, including that the bitcoin market as a whole or the relevant underlying bitcoin market is “uniquely” and “inherently” resistant to fraud and manipulation.<sup>21</sup> In response, the Commission has agreed that, if a listing exchange could establish that the underlying market inherently possesses a unique resistance to manipulation beyond the protections that are utilized by traditional commodity or securities markets, it would not

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<sup>20</sup> See USBT Order, 85 FR at 12597; Securities Exchange Act Release No. 33555 (Jan. 31, 1994), 59 FR 5619, 5621 (Feb. 7, 1994) (SR-Amex-93-28) (order approving listing of options on American Depositary Receipts (“ADRs”)). The Commission has also required a surveillance-sharing agreement in the context of index options even when (i) all of the underlying index component stocks were either registered with the Commission or exempt from registration under the Exchange Act; (ii) all of the underlying index component stocks traded in the U.S. either directly or as ADRs on a national securities exchange; and (iii) effective international ADR arbitrage alleviated concerns over the relatively smaller ADR trading volume, helped to ensure that ADR prices reflected the pricing on the home market, and helped to ensure more reliable price determinations for settlement purposes, due to the unique composition of the index and reliance on ADR prices. See Securities Exchange Act Release No. 26653 (Mar. 21, 1989), 54 FR 12705, 12708 (Mar. 28, 1989) (SR-Amex-87-25) (stating that “surveillance-sharing agreements between the exchange on which the index option trades and the markets that trade the underlying securities are necessary” and that “[t]he exchange of surveillance data by the exchange trading a stock index option and the markets for the securities comprising the index is important to the detection and deterrence of intermarket manipulation.”). And the Commission has required a surveillance-sharing agreement even when approving options based on an index of stocks traded on a national securities exchange. See Securities Exchange Act Release No. 30830 (June 18, 1992), 57 FR 28221, 28224 (June 24, 1992) (SR-Amex-91-22) (stating that surveillance-sharing agreements “ensure the availability of information necessary to detect and deter potential manipulations and other trading abuses”).

<sup>21</sup> See USBT Order, 85 FR at 12597.

necessarily need to enter into a surveillance-sharing agreement with a regulated significant market.<sup>22</sup> Such resistance to fraud and manipulation, however, must be novel and beyond those protections that exist in traditional commodity markets or equity markets for which the Commission has long required surveillance-sharing agreements in the context of listing derivative securities products.<sup>23</sup> No listing exchange has satisfied its burden to make such demonstration.<sup>24</sup>

Here, BZX contends that approval of the proposal is consistent with Section 6(b)(5) of the Exchange Act, and, in particular, Section 6(b)(5)'s requirement that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices and to protect investors and the public interest.<sup>25</sup> As discussed in more detail below, BZX asserts that the proposal is consistent with Section 6(b)(5) of the Exchange Act because the Exchange has a comprehensive surveillance-sharing agreement with a regulated market of significant size,<sup>26</sup> and there exist other means to prevent fraudulent and manipulative acts and practices that are sufficient to justify dispensing with the requisite surveillance-sharing agreement.<sup>27</sup>

Specifically, the Exchange believes that the proposal is consistent with the requirements of Section 6(b)(5) of the Exchange Act because the proposal sufficiently

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<sup>22</sup> See Winklevoss Order, 83 FR at 37580, 37582-91 (addressing assertions that “bitcoin and bitcoin [spot] markets” generally, as well as one bitcoin trading platform specifically, have unique resistance to fraud and manipulation); see also USBT Order, 85 FR at 12597.

<sup>23</sup> See USBT Order, 85 FR at 12597.

<sup>24</sup> See supra note 12.

<sup>25</sup> See Amendment No. 1, 86 FR at 73370-78.

<sup>26</sup> See id. at 73371-72.

<sup>27</sup> See id. at 73372-78



demonstrates that the Chicago Mercantile Exchange (“CME”) bitcoin futures market represents a regulated market of significant size and that, on the whole, “the manipulation concerns previously articulated by the Commission are sufficiently mitigated to the point that they are outweighed by quantifiable investor protection issues that would be resolved by approving this proposal.”<sup>28</sup>

Further, BZX believes that the proposal would give U.S. investors access to bitcoin in a regulated and transparent exchange-traded vehicle that would act to limit risk to U.S. investors. According to BZX, the proposed listing and trading of the Shares would mitigate risk by: (i) reducing premium and discount volatility; (ii) reducing management fees through meaningful competition; (iii) reducing risks and costs associated with investing in bitcoin futures exchange-traded funds and operating companies that are imperfect proxies for bitcoin exposure; and (iv) providing an alternative to custodying spot bitcoin.<sup>29</sup>

In the analysis that follows, the Commission examines whether the proposed rule change, as modified by Amendment No. 1, is consistent with Section 6(b)(5) of the Exchange Act by addressing: in Section III.B.1 assertions that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices; in Section III.B.2 assertions that BZX has entered into a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin; and in Section III.C assertions that the proposal is consistent with the protection of investors and the public interest.

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<sup>28</sup> See id. at 73382.

<sup>29</sup> See id. at 73390.

Based on its analysis, the Commission concludes that BZX has not established that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with the requisite surveillance-sharing agreement. The Commission further concludes that BZX has not established that it has a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin. As discussed further below, BZX repeats certain assertions made in prior bitcoin-based ETP proposals that the Commission has previously addressed and rejected—and more importantly, BZX does not respond to the Commission’s reasons for rejecting those assertions but merely repeats them. As a result, the Commission is unable to find that the proposed rule change is consistent with the statutory requirements of Exchange Act Section 6(b)(5).

The Commission again emphasizes that its disapproval of this proposed rule change, as modified by Amendment No. 1, does not rest on an evaluation of whether bitcoin, or blockchain technology more generally, has utility or value as an innovation or an investment. Rather, the Commission is disapproving this proposed rule change, as modified by Amendment No. 1, because, as discussed below, BZX has not met its burden to demonstrate that its proposal is consistent with the requirements of Exchange Act Section 6(b)(5).

## **II. DESCRIPTION OF THE PROPOSED RULE CHANGE, AS MODIFIED BY AMENDMENT NO. 1**

As described in more detail in Amendment No. 1,<sup>30</sup> the Exchange proposes to list and trade the Shares of the Trust under BZX Rule 14.11(e)(4), which governs the listing and trading of Commodity-Based Trust Shares on the Exchange.

The investment objective of the Trust would be to seek to track the performance of bitcoin, as measured by the performance of the S&P Bitcoin Index (“Index”), adjusted for the Trust’s expenses and other liabilities.<sup>31</sup> Each Share will represent a fractional undivided beneficial interest in the bitcoin held by the Trust. The Trust’s assets will consist of bitcoin held by the Custodian on behalf of the Trust. The Trust generally does not intend to hold cash or cash equivalents. However, there may be situations where the Trust will unexpectedly hold cash on a temporary basis.<sup>32</sup>

In seeking to achieve its investment objective, the Trust would hold bitcoin and value the Shares daily based on the Index. The Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin. The Index price is currently sourced from the following platforms: Binance, Bitfinex, Bitflyer, Bittrex, Bitstamp, Coinbase

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<sup>30</sup> See Amendment No. 1, supra note 8. See also draft Registration Statement on Form S-1, dated June 28, 2021, filed with the Commission on behalf of the Trust (“Registration Statement”).

<sup>31</sup> See Amendment No. 1, 86 FR at 73379. 21Shares US LLC (“Sponsor”) is the sponsor of the Trust, Delaware Trust Company is the trustee, and The Bank of New York Mellon will be the administrator (“Administrator”) and transfer agent. Foreside Global Services, LLC will be the marketing agent in connection with the creation and redemption of Shares. ARK Investment Management LLC will provide assistance in the marketing of the Shares. Coinbase Custody Trust Company, LLC (“Custodian”) will be responsible for custody of the Trust’s bitcoin. See id. at 73361, 73378.

<sup>32</sup> See id. at 73378-79.

Pro, Gemini, HitBTC, Huobi, Kraken, KuCoin, and Poloniex.<sup>33</sup> The Index methodology is intended to determine the fair market value for bitcoin by determining the principal market for bitcoin as of 4:00 p.m. ET daily.<sup>34</sup>

The net asset value (“NAV”) of the Trust means the total assets of the Trust including, but not limited to, all bitcoin and cash, if any, less total liabilities of the Trust, each determined on the basis of generally accepted accounting principles. The NAV of the Trust is the aggregate value of the Trust’s assets less its estimated accrued but unpaid liabilities (which include accrued expenses). In determining the Trust’s NAV, the Administrator values the bitcoin held by the Trust based on the price set by the Index as of 4:00 p.m. ET. The Administrator determines the NAV of the Trust on each day that the Exchange is open for regular trading, as promptly as practical after 4:00 p.m. ET.<sup>35</sup>

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<sup>33</sup> The underlying platforms are sourced by Lukka Inc. (“Data Provider”), which according to BZX, bases its sourcing on a combination of qualitative and quantitative metrics to analyze a comprehensive data set and evaluate factors including legal/regulation, Know-Your-Customer/transaction risk, data provision, security, team/exchange, asset quality/diversity, market quality, and negative events. See id. at 73379.

<sup>34</sup> According to BZX, the Index methodology uses a ranking approach that considers several platform characteristics including oversight and intra-day trading volume. Specifically, to rank the credibility and quality of each platform, the Data Provider dynamically assigns a Base Exchange Score (“BES”) to the key characteristics for each platform. The BES reflects the fundamentals of a platform and determines which platform should be designated as the principal market at a given point of time. This score is determined by computing a weighted average of the values assigned to four different platform characteristics: (i) oversight; (ii) microstructure efficiency; (iii) data transparency; and (iv) data integrity. The methodology then applies a five-step weighting process for identifying a principal market and the last price on that market. Following this weighting process, an “executed exchange price” is assigned for bitcoin as of 4:00 p.m. ET. The Data Provider takes the last traded prices at that moment in time on that trading venue for the relevant pair (bitcoin/USD) when determining the Index price. See id. at 73379-80.

<sup>35</sup> See id. at 73381.

The Trust will provide information regarding the Trust’s bitcoin holdings, as well as an Intraday Indicative Value (“IIV”) per Share updated every 15 seconds, as calculated by the Exchange or a third-party financial data provider during the Exchange’s Regular Trading Hours (9:30 a.m. ET to 4:00 p.m. ET). The IIV will be calculated by using the prior day’s closing NAV per Share as a base and updating that value during Regular Trading Hours to reflect changes in the value of the Trust’s bitcoin holdings during the trading day.<sup>36</sup>

When the Trust sells or redeems its Shares, it will do so in “in-kind” transactions in blocks of 5,000 Shares. When creating the Shares, authorized participants will deliver, or facilitate the delivery of, bitcoin to the Trust’s account with the Custodian in exchange for the Shares, and, when redeeming the Shares, the Trust, through the Custodian, will deliver bitcoin to such authorized participants.<sup>37</sup>

### **III. DISCUSSION**

#### **A. The Applicable Standard for Review**

The Commission must consider whether BZX’s proposal is consistent with the Exchange Act. Section 6(b)(5) of the Exchange Act requires, in relevant part, that the rules of a national securities exchange be designed “to prevent fraudulent and manipulative acts and practices” and “to protect investors and the public interest.”<sup>38</sup>

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<sup>36</sup> See id. at 73380.

<sup>37</sup> See id. at 73379.

<sup>38</sup> 15 U.S.C. 78f(b)(5). Pursuant to Section 19(b)(2) of the Exchange Act, 15 U.S.C. 78s(b)(2), the Commission must disapprove a proposed rule change filed by a national securities exchange if it does not find that the proposed rule change is consistent with the applicable requirements of the Exchange Act. Exchange Act Section 6(b)(5) states that an exchange shall not be registered as a national securities exchange unless the Commission determines that “[t]he rules of the

Under the Commission’s Rules of Practice, the “burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the self-regulatory organization [‘SRO’] that proposed the rule change.”<sup>39</sup>

The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,<sup>40</sup> and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Exchange Act and the applicable rules and regulations.<sup>41</sup> Moreover, “unquestioning reliance” on an SRO’s representations in a proposed rule change is not sufficient to justify Commission approval of a proposed rule change.<sup>42</sup>

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exchange are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest; and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers, or to regulate by virtue of any authority conferred by this title matters not related to the purposes of this title or the administration of the exchange.” 15 U.S.C. 78f(b)(5).

<sup>39</sup> Rule 700(b)(3), Commission Rules of Practice, 17 CFR 201.700(b)(3).

<sup>40</sup> See id.

<sup>41</sup> See id.

<sup>42</sup> Susquehanna Int’l Group, LLP v. Securities and Exchange Commission, 866 F.3d 442, 447 (D.C. Cir. 2017) (“Susquehanna”).

**B. Whether BZX Has Met Its Burden to Demonstrate That the Proposal Is Designed to Prevent Fraudulent and Manipulative Acts and Practices**

- (1) Assertions That Other Means Besides Surveillance-Sharing Agreements Will Be Sufficient to Prevent Fraudulent and Manipulative Acts and Practices

As stated above, the Commission has recognized that a listing exchange could demonstrate that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with a comprehensive surveillance-sharing agreement with a regulated market of significant size, including by demonstrating that the bitcoin market as a whole or the relevant underlying bitcoin market is uniquely and inherently resistant to fraud and manipulation.<sup>43</sup> Such resistance to fraud and manipulation must be novel and beyond those protections that exist in traditional commodities or securities markets.<sup>44</sup>

(i) Assertions Regarding Bitcoin Markets

BZX asserts that bitcoin is resistant to price manipulation. According to BZX, the geographically diverse and continuous nature of bitcoin trading render it difficult and prohibitively costly to manipulate the price of bitcoin.<sup>45</sup> Fragmentation across bitcoin platforms, the relatively slow speed of transactions, and the capital necessary to maintain a significant presence on each trading platform make manipulation of bitcoin prices

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<sup>43</sup> See USBT Order, 85 FR at 12597 n.23. The Commission is not applying a “cannot be manipulated” standard. Instead, the Commission is examining whether the proposal meets the requirements of the Exchange Act and, pursuant to its Rules of Practice, places the burden on the listing exchange to demonstrate the validity of its contentions and to establish that the requirements of the Exchange Act have been met. See *id.*

<sup>44</sup> See *id.* at 12597.

<sup>45</sup> See Amendment No. 1, 86 FR at 73370 n.73.

through continuous trading activity challenging.<sup>46</sup> To the extent that there are bitcoin platforms engaged in or allowing wash trading or other activity intended to manipulate the price of bitcoin on other markets, such pricing does not normally impact prices on other platforms because participants will generally ignore markets with quotes that they deem non-executable.<sup>47</sup> BZX further argues that the linkage between the bitcoin markets and the presence of arbitrageurs in those markets means that the manipulation of the price of bitcoin on any single venue would require manipulation of the global bitcoin price in order to be effective.<sup>48</sup> Arbitrageurs must have funds distributed across multiple trading platforms in order to take advantage of temporary price dislocations, thereby making it unlikely that there will be strong concentration of funds on any particular bitcoin trading venue.<sup>49</sup> As a result, BZX concludes that “the potential for manipulation on a [bitcoin] trading platform would require overcoming the liquidity supply of such arbitrageurs who are effectively eliminating any cross-market pricing differences.”<sup>50</sup>

BZX provides results of statistical analysis by the Sponsor in support of its assertions regarding linkages between bitcoin markets and efficient arbitrage across such markets. First, according to BZX, using daily bitcoin prices, the Sponsor calculated the Pearson correlation<sup>51</sup> of returns across certain bitcoin spot markets, non-U.S. bitcoin

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<sup>46</sup> See id.

<sup>47</sup> See id.

<sup>48</sup> See id.

<sup>49</sup> See id.

<sup>50</sup> See id.

<sup>51</sup> According to the Exchange, the Pearson correlation is a measure of linear association between two variables and indicates the magnitude as well as direction of this relationship. See id. at 73368 n.68.



ETPs, and the CME, and concluded that there is a high degree of correlation across these markets.<sup>52</sup> BZX argues that in markets that are globally and efficiently integrated, one would expect changes in prices of an asset across all markets to be highly correlated, and that “the rationale behind this is that quick and efficient arbitrageurs would capture potentially profitable opportunities, consequently converging prices to the average intrinsic value very rapidly.”<sup>53</sup>

Second, BZX asserts that, according to the Sponsor’s research, this high correlation holds true during periods of extreme price volatility. Employing a statistical component called cokurtosis, which, according to BZX, measures to what extent two random variables change together, the Sponsor found, using hourly bitcoin prices, that the bitcoin markets tend to move very similarly, especially for extreme price deviations. BZX states that this is evidence of a robust global bitcoin market “that quickly reacts in a unanimous manner to extreme price movements across both the spot markets, futures and [non-U.S.] ETP markets.”<sup>54</sup> According to BZX, this implies that “no single [b]itcoin

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<sup>52</sup> See id. at 73368. BZX represents that correlations are between 57% and 99%, with the latter found mainly across centralized market venues due to their higher level of interconnectedness and the lower correlations pertaining mainly to the non-U.S. bitcoin ETPs, which are relatively newer products and are mainly offered by a few competing market makers who are required to trade in large blocks, thus making it, according to BZX, economically infeasible to capture small mispricings. According to BZX, as additional investors and arbitrageurs enter the market and capture the mispricing opportunities between these markets, it is likely that there will be much higher levels of correlations across all markets. See id.

<sup>53</sup> See id.

<sup>54</sup> According to BZX, if two returns series exhibit a high degree of cokurtosis, this means that they tend to undergo extreme positive and negative changes simultaneously. A cokurtosis value larger than +3 or less than -3 is considered statistically significant. According to BZX, the Sponsor calculated cokurtosis using hourly bitcoin returns across “centralized” market venues, two non-U.S.

market can deviate significantly from the consensus for a prolonged period of time, such that the global [b]itcoin market is sufficiently large and has an inherent unique resistance to manipulation.”<sup>55</sup>

Third, based on the Sponsor’s research using daily bitcoin price series, BZX argues that cross-platform spreads in bitcoin have been declining consistently over the past several years.<sup>56</sup> BZX contends that the “clear and sharp” decline in the spread indicates that the bitcoin market has become more efficient over time.<sup>57</sup> In addition, based on the Sponsor’s research, BZX argues that the magnitude of outlier spreads have also declined over time, and that the market has experienced a 38% year-on-year decline in the annual median spread, indicating “a greater degree of [b]itcoin price convergence across [platforms] and a more efficient market.”<sup>58</sup> Further, based on the Sponsor’s calculations of a 7-day rolling standard deviation of the spread from January 1, 2017, to December 1, 2021, BZX asserts that the dispersion in bitcoin prices across all platforms has decreased over time, indicating that prices on all the considered platforms converge towards the “intrinsic average” much more efficiently, and suggesting that the market has

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ETPs (21Shares Bitcoin ETP (Ticker: ABTC) and VanEck Vectors Bitcoin ETN (Ticker: VBTC)), and the CME. See id. at 73369 & n.69.

<sup>55</sup> See id. at 73369.

<sup>56</sup> According to BZX, the Sponsor calculated the largest cross-platform percentage spread (defined as “%C-Spread”) at a given time by subtracting the highest price across all platforms at that time from the lowest price across all platforms at that time, and dividing the result by that lowest price. BZX represents that, for this calculation, the Sponsor used daily bitcoin price series from Binance, Bitfinex, Bithumb, Bitstamp, Cexio, Coinbase, Coinone, Gateio, Gemini, HuobiPro, itBit, Kraken, Kucoin, and OKEX. See id. at 73372 & n.95.

<sup>57</sup> See id. at 73373.

<sup>58</sup> See id.

become better at quickly reaching a “consensus price” for bitcoin.<sup>59</sup> BZX posits that, as the pricing of the bitcoin market becomes increasingly efficient, pricing methodologies become “more accurate and less susceptible to manipulation.” BZX further asserts that the “clustering of prices across a variety of sources within the primary market” points towards robust price discovery mechanisms and efficient arbitrage.<sup>60</sup>

Fourth, BZX asserts that one factor that has contributed to the overall efficiency, price discovery, and lower volatility of the bitcoin market is the increase in the number of participants, and subsequently, “the total dollar amount allocated to this market.” BZX’s measure of participation is based on the increase from March 2012 to December 2021 in the number of wallet addresses holding bitcoin.<sup>61</sup>

Finally, BZX contends that this increase in the number of participants has resulted in higher liquidity in the bitcoin market, based on the “daily aggregated dollar notional of the bid and ask order books within the first 100 price levels across several of the largest centralized crypto [platforms] from October 2020 to April 2021.” According to BZX, “the dollar notional that is allocated closest to the mid price has increased from around \$230 million to \$860 million over that period, representing a 270% increase in half a year.”<sup>62</sup> BZX suggests that the “increased notional order book” indicates that there is a “higher degree of consensus” among investors regarding the price of bitcoin, and that this “hampers any attempt of price manipulation by any single large entity.”<sup>63</sup> Additionally,

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<sup>59</sup> See id. at 73374.

<sup>60</sup> See id.

<sup>61</sup> See id. at 73375.

<sup>62</sup> See id.

<sup>63</sup> See id. at 73376.

according to BZX, the Sponsor found that movements in the bid and ask dollar notional of the bitcoin order book within a six-hour window around “extreme”<sup>64</sup> price events were indicative of an efficient market, whereby large market movements are “quickly and dynamically absorbed” by a thick order book and market participants’ reactions are “quick to restore the market back to its equilibrium level.”<sup>65</sup>

As with the previous proposals, the Commission here concludes that the record does not support a finding that the bitcoin market is inherently and uniquely resistant to fraud and manipulation.<sup>66</sup> BZX asserts that, because of how bitcoin trades occur, including through continuous means and through fragmented platforms, arbitrage across the bitcoin platforms essentially helps to keep global bitcoin prices aligned with one another, thus hindering manipulation. The Exchange also provides various statistics from the Sponsor which purport to show that bitcoin prices are closely and increasingly aligned across markets and that any price disparities are quickly arbitrated away. However, as described by BZX, the Sponsor’s statistics are based on aggregated daily or hourly bitcoin prices (for example, according to BZX, the Pearson correlations were calculated using daily bitcoin prices, and cokurtosis was calculated using hourly bitcoin prices). Such data does not capture intra-hour or intra-day price disparities, and provides

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<sup>64</sup> According to BZX, the Sponsor used the top and bottom 0.1% of hourly price changes from October 2020 to April 2021 as events of extreme upward and downward market movements. See id.

<sup>65</sup> See id.

<sup>66</sup> One commenter questions BZX’s statement about bitcoin’s resistance to fraud and manipulation. See letter from Adam Girts, dated November 5, 2021 (“Girts Letter”) (stating that the proposed ETP does not “seem resistant to manipulation” and that the Exchange’s emphasis on the decentralized nature of bitcoin itself “is a red herring.”).

no information on how long price disparities typically persist. Nor do the Sponsor's statistics or BZX's assertions provide any insight into what size or duration of price disparities would be profitable for a would-be manipulator, and thus they do not inform BZX's conclusion that bitcoin pricing has become "less susceptible to manipulation."<sup>67</sup>

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<sup>67</sup> See Amendment No. 1, 86 FR at 73374. Several other deficiencies in the Sponsor's methodological choices prevent the Commission from agreeing with the Exchange's conclusions. For example, one measure of cokurtosis uses the square of the difference of two random variables from their means, and the squares of the two variables' standard deviations, and as such, the statistic calculates magnitude, but not direction. If this is the cokurtosis statistic that was used by the Sponsor (Amendment No. 1 does not specify), then while the results may show that the two variables move together, it would not necessarily mean that the two variables move in the same direction "in a unanimous manner" (see id. at 73369). In addition, by design, the Sponsor's "%C-Spread" statistic measures the maximum difference among prices (i.e., the highest and lowest) across bitcoin platforms at a given point in time. However, such statistic does not provide any information about the extent of price dispersion among the intermediary prices across bitcoin platforms or whether there is any "intrinsic average" or "consensus price" of bitcoin towards which prices are converging (see id. at 73374). Moreover, the Commission is not able to assess the validity of the Sponsor's claims regarding "higher liquidity" in the bitcoin market, based upon the Sponsor's calculations of "increased notional order book" and reactions to "extreme" price events, because of insufficient detail in the proposal on the process the Sponsor used to calculate the "dollar notional" of a bitcoin platform's order book, the "mid price" on a bitcoin platform, and the "first 100 price levels" across bitcoin platforms (see id. at 73375-76). Further, even if the calculations performed by the Sponsor show, as BZX claims, that "there is a higher degree of consensus among investors regarding the price of [b]itcoin" and that "market participants' reactions are quick to restore the market back to its equilibrium level," the Exchange has not demonstrated how either purported showing leads to its conclusion that this "hampers any attempt of price manipulation by any single large entity" (see id. at 73376). In particular, the Exchange has not addressed the concerns raised by the Commission in previous proposals, as well as risk factors raised by the Sponsor in the Registration Statement, that actions by a single large, dominant market participant could "have an adverse effect on the price of bitcoin" (see Registration Statement at 24 and infra note 71). That is, even if, as the Exchange claims, there is a "high degree of consensus" among investors and market participants are "quick to restore" the market back to its equilibrium level, the trading activity of a dominant market participant could, itself, impact what that consensus/equilibrium will be. These deficiencies undermine the Exchange's

The Commission is thus unable to conclude from the evidence provided that arbitrage across bitcoin markets is efficient, let alone so efficient as to make the markets inherently resistant to fraud and manipulation.<sup>68</sup>

Efficient price arbitrage, moreover, is not sufficient to support the finding that a market is uniquely and inherently resistant to manipulation such that the Commission can dispense with surveillance-sharing agreements.<sup>69</sup> The Commission has stated, for example, that even for equity options based on securities listed on national securities exchanges, the Commission relies on surveillance-sharing agreements to detect and deter

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arguments that linkages between bitcoin markets, and increasingly efficient arbitrage across such markets, make such markets less susceptible to manipulation.

<sup>68</sup> In addition, the Registration Statement states: “As the use of digital asset networks increases without a corresponding increase in transaction processing speed of the networks, average fees and settlement times can increase significantly. Bitcoin’s network has been, at times, at capacity, which has led to increased transaction fees. . . . Increased fees and decreased settlement speeds . . . could adversely impact the value of the Shares.” See Registration Statement at 21. The Registration Statement further states that “the [b]itcoin network faces significant obstacles to increasing the usage of bitcoin without resulting in higher fees or slower transaction settlement times, and attempts to increase the volume of transactions may not be effective . . . which may adversely affect the price of bitcoin and therefore an investment in the Shares.” See Registration Statement at 14. BZX does not provide data or analysis to address, among other things, whether such risks of increased fees and bitcoin transaction settlement times may affect the arbitrage effectiveness that BZX asserts. See also *infra* note 81 and accompanying text (referencing statements made in the Registration Statement that contradict assertions made by BZX). And without such data or analysis, the Commission cannot accept BZX’s assertions. See *Susquehanna*, 866 F.3d at 447.

<sup>69</sup> See *Winklevoss Order*, 83 FR at 37586; *SolidX Order*, 82 FR at 16256-57; *USBT Order*, 85 FR at 12601; *WisdomTree Order*, 86 FR at 69325; *Valkyrie Order*, 86 FR at 74159-60; *Kryptoin Order*, 86 FR at 74170; *Wise Origin Order*, 87 FR at 5531.

fraud and manipulation.<sup>70</sup> Here, the Exchange provides insufficient evidence to support its assertion of efficient price arbitrage across bitcoin platforms, let alone any evidence that price arbitrage in the bitcoin market is novel or unique so as to warrant the Commission dispensing with the requirement of a surveillance-sharing agreement. Moreover, BZX's data regarding the increase in the number of wallet addresses holding bitcoin do not provide any information on the concentration of bitcoin within or among such wallets, or take into account that a market participant with a dominant ownership position would not find it prohibitively expensive to overcome the liquidity supplied by arbitrageurs and could use dominant market share to engage in manipulation.<sup>71</sup>

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<sup>70</sup> See, e.g., USBT Order, 85 FR at 12601; WisdomTree Order, 86 FR at 69329; Valkyrie Order, 86 FR at 74160; Kryptoin Order, 86 FR at 74170; Wise Origin Order, 87 FR at 5531. The Commission also notes that equities that underlie such options trade on U.S. equity markets that are deep, liquid, highly interconnected, and almost entirely automated, and that operate at high speeds measured in microseconds and even nanoseconds. See SEC Staff Report on Algorithmic Trading in U.S. Capital Markets (Aug. 5, 2020), available at: [https://www.sec.gov/files/Algo\\_Trading\\_Report\\_2020.pdf](https://www.sec.gov/files/Algo_Trading_Report_2020.pdf); Market Data Infrastructure Proposing Release, Securities Exchange Act Release No. 88216 (Feb. 14, 2020), 85 FR 16726, 16728 (Mar. 24, 2020).

<sup>71</sup> See, e.g., Winklevoss Order, 83 FR at 37584; USBT Order, 85 FR at 12600-01; WisdomTree Order, 86 FR at 69325; Valkyrie Order, 86 FR at 74160; Kryptoin Order, 86 FR at 74170; Skybridge Order, 87 FR at 3783-84; Wise Origin Order, 87 FR at 5531. See also Registration Statement at 24 (“Some entities hold large amounts of bitcoin relative to other market participants, and to the extent such entities engage in large-scale hedging, sales or distributions on non-market terms, or sales in the ordinary course, it could result in a reduction in the price of bitcoin and adversely affect the value of the Shares. . . . As of the date of this [Registration Statement], the largest 100 bitcoin wallets held a substantial amount of the outstanding supply of bitcoin and it is possible that some of these wallets are controlled by the same person or entity. Moreover, it is possible that other persons or entities control multiple wallets that collectively hold a significant number of bitcoin, even if each wallet individually only holds a small amount. As a result of this concentration of ownership, large sales by such holders could have an adverse effect on the market price of bitcoin.”); and supra note 67.

In addition, the Exchange makes the unsupported claim that, to the extent that there are bitcoin platforms engaged in or allowing wash trading or other manipulative activities, market participants will generally ignore those platforms.<sup>72</sup> However, without the necessary data or other evidence, the Commission has no basis on which to conclude that bitcoin platforms are insulated from prices of others that engage in or permit fraud or manipulation.<sup>73</sup> Indeed, the notion that a platform would be insulated from prices on other platforms is contradicted by the Exchange's assertions and the Sponsor's statistical evidence that bitcoin markets are "highly correlated," including during periods of extreme price volatility.<sup>74</sup>

Additionally, the continuous nature of bitcoin trading does not eliminate manipulation risk, and neither do linkages among markets, as BZX asserts.<sup>75</sup> Even in the presence of continuous trading or linkages among markets, formal (such as those with consolidated quotations or routing requirements) or otherwise (such as in the context of the fragmented, global bitcoin markets), manipulation of asset prices, as a general matter,

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<sup>72</sup> See Amendment No. 1, 86 FR at 73370 n.73 ("To the extent that there are bitcoin exchanges engaged in or allowing wash trading or other activity intended to manipulate the price of bitcoin on other markets, such pricing does not normally impact prices on other exchange because participants will generally ignore markets with quotes that they deem non-executable.").

<sup>73</sup> See USBT Order, 85 FR at 12601. See also WisdomTree Order, 86 FR at 69325; Kryptoin Order, 86 FR at 74170; Wise Origin Order, 87 FR at 5531.

<sup>74</sup> See supra notes 52-54 and accompanying text.

<sup>75</sup> See Winklevoss Order, 83 FR at 37585 n.92 and accompanying text. See also WisdomTree Order, 86 FR at 69325-26; Kryptoin Order, 86 FR at 74170; Skybridge Order, 87 FR at 3783-84; Wise Origin Order, 87 FR at 5531.



can occur simply through trading activity that creates a false impression of supply or demand.<sup>76</sup>

Moreover, BZX does not sufficiently contest the presence of possible sources of fraud and manipulation in the bitcoin spot market generally that the Commission has raised in previous orders. Such possible sources have included (1) “wash” trading,<sup>77</sup> (2) persons with a dominant position in bitcoin manipulating bitcoin pricing,<sup>78</sup> (3) hacking of the bitcoin network and trading platforms, (4) malicious control of the bitcoin network, (5) trading based on material, non-public information, including the dissemination of false and misleading information, (6) manipulative activity involving the purported “stablecoin” Tether (USDT), and (7) fraud and manipulation at bitcoin trading platforms.<sup>79</sup>

In addition, BZX does not address risk factors specific to the bitcoin blockchain and bitcoin platforms, described in the Trust’s Registration Statement, that undermine the argument that the bitcoin market is inherently resistant to fraud and manipulation. For example, the Registration Statement acknowledges that “it may be possible for a bad actor to manipulate the [b]itcoin network and hinder transactions”; that “[s]pot markets on which bitcoin trades are relatively new and largely unregulated, and, therefore, may be more exposed to fraud and security breaches than established, regulated exchanges for

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<sup>76</sup> See Winklevoss Order, 83 FR at 37585.

<sup>77</sup> See supra notes 72-73 and accompanying text.

<sup>78</sup> See supra note 71 and accompanying text.

<sup>79</sup> See USBT Order, 85 FR at 12600-01 & nn.66-67 (discussing J. Griffin & A. Shams, Is Bitcoin Really Untethered? (October 28, 2019), available at <https://ssrn.com/abstract=3195066> and published in 75 J. Finance 1913 (2020)); Winklevoss Order, 83 FR at 37585-86.

other financial assets or instruments, which could have a negative impact on the performance of the Trust”;<sup>80</sup> that “[o]ver the past several years, a number of bitcoin spot markets have been closed or faced issues due to fraud, failure, security breaches or governmental regulations”; that “[t]he nature of the assets held at bitcoin spot markets makes them appealing targets for hackers and a number of bitcoin spot markets have been victims of cybercrimes” and “[n]o bitcoin [platform] is immune from these risks”; that “[t]he potential consequences of a spot market’s failure or failure to prevent market manipulation could adversely affect the value of the Shares[,] . . . . [t]he blockchain infrastructure could be used by certain market participants to exploit arbitrage opportunities through schemes such as front-running, spoofing, pump-and-dump and fraud across different systems, platforms or geographic locations” . . . . and “[a]s a result of reduced oversight, these schemes may be more prevalent in digital asset markets than in the general market for financial products”; that “many [bitcoin] spot markets and over-the-counter market venues . . . do not provide the public with significant information regarding their ownership structure, management teams, corporate practices or oversight of customer trading” and “many [bitcoin] spot markets lack certain safeguards put in place by more traditional exchanges to enhance the stability of trading on the exchange”; that “[s]ecurity breaches, cyber-attacks, computer malware and computer hacking attacks have been a prevalent concern in relation to digital assets”; and that the bitcoin blockchain could be vulnerable to a “51% attack,” in which a bad actor or actors that control a majority of the processing power dedicated to mining on the bitcoin network

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<sup>80</sup> BZX expressly acknowledges that “unregulated currency and commodity markets do not provide the same protections as the markets that are subject to the Commission’s oversight.” See Amendment No. 1, 86 FR at 73362.

may be able to alter the bitcoin blockchain on which the bitcoin network and bitcoin transactions rely.<sup>81</sup>

(ii) Assertions Regarding the Index and the Create/Redeem Process

BZX also argues that the Index, which would be used to value the Trust's bitcoin, is designed to reduce the risk of manipulation based on the Index's methodology.<sup>82</sup> BZX states that the Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin. The Index price is currently sourced from the following bitcoin platforms selected by the Data Provider based on a combination of qualitative and quantitative metrics: Binance, Bitfinex, Bitflyer, Bittrex, Bitstamp, Coinbase Pro, Gemini, HitBTC, Huobi, Kraken, KuCoin, and Poloniex.<sup>83</sup> According to BZX, the Index methodology is intended to determine the fair market value for bitcoin by determining the "principal market" for bitcoin as of 4:00 p.m. ET daily. To rank the credibility and quality of each underlying bitcoin platform, the Data Provider dynamically assigns a score to the key characteristics for each platform.<sup>84</sup> BZX states that the score determines which platform should be designated as the "principal market" at a given point of time by computing a weighted average of the values assigned to four different platform characteristics: (i) oversight; (ii) microstructure efficiency; (iii) data transparency; and (iv) data integrity.<sup>85</sup> The methodology then applies a five-step weighting process for identifying a principal

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<sup>81</sup> See Registration Statement at 4, 12-13, 18-20, 28. See also Winklevoss Order, 83 FR at 37585.

<sup>82</sup> See Amendment No. 1, 86 FR at 73378.

<sup>83</sup> See *id.* at 73379.

<sup>84</sup> See *id.*

<sup>85</sup> See *id.*

market and the last price on that market.<sup>86</sup> Following this weighting process, an “executed exchange price” is assigned for bitcoin as of 4:00 p.m. ET. The Data Provider takes the last traded prices at that moment in time on that trading venue for the relevant pair (bitcoin/USD) when determining the Index price.<sup>87</sup>

BZX asserts that the fact that there are multiple bitcoin spot markets that may contribute prices to the Index price makes manipulation more difficult in a well-arbitrated and fractured market, as a malicious actor would need to manipulate multiple spot markets simultaneously to impact the Index price, or dramatically skew the historical distribution of volume between the various platforms.<sup>88</sup> In addition, BZX asserts that the Data Provider has dedicated resources and committees established to ensure all prices are representative of the market, and that any price challenges will result in an independent analysis of the price. This includes assessing whether the price from the selected platform is biased according to analyses designed to recognize patterns consistent with manipulative activity, such as a quick reversion to previous traded levels following a sharp price change or any significant deviations from the volume weighted average price on a particular platform or pricing on any other eligible platform.<sup>89</sup> In addition, BZX

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<sup>86</sup> See id.

<sup>87</sup> See id. at 73379-80.

<sup>88</sup> See id. at 73380.

<sup>89</sup> See id. BZX states that, upon detection or external referral of suspect manipulative activities, the case is raised to the Price Integrity Oversight Board. These checks occur on an on-going, intraday basis, and any investigations are typically resolved promptly, in clear cases within minutes and in more complex cases same business day. According to BZX, the evidence uncovered will be turned over to the Data Provider’s Price Integrity Oversight Board for final decision and action. The Price Integrity Oversight Board may choose to pick an alternative “primary market” and may exclude such market from future inclusion

further represents that, after the “Lukka Prime price”<sup>90</sup> is generated, the S&P DJI (“Index Provider”) performs independent quality checks as a second layer of validation to those employed by the Data Provider, and may submit a price challenge to the Data Provider. In such circumstances, according to BZX, the Data Provider will perform an independent review of the price challenge to ensure the price is representative of the fair value of a particular cryptocurrency.<sup>91</sup>

Simultaneously with its assertions regarding the Index, BZX also states that, because the Trust will engage in in-kind creations and redemptions only, the “manipulability of the Index [is] significantly less important.”<sup>92</sup> BZX elaborates further that, “because the Trust will not accept cash to buy bitcoin in order to create new shares or . . . be forced to sell bitcoin to pay cash for redeemed shares, the price that the Sponsor uses to value the Trust’s bitcoin is not particularly important.”<sup>93</sup> According to BZX, when authorized participants create Shares with the Trust, they would need to deliver a certain number of bitcoin per Share (regardless of the valuation used), and when they redeem with the Trust, they would similarly expect to receive a certain number of bitcoin per

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in the Index methodology or choose to stand by the original published price upon fully evaluating all available evidence. It may also initiate an investigation of prior prices from such markets and shall evaluate evidence presented on a case-by-case basis. See id.

<sup>90</sup> The Exchange appears to use the terms “Lukka Prime price,” “Lukka price,” and “Index price” interchangeably. The Commission understands these terms to be interchangeable.

<sup>91</sup> See Amendment No. 1, 86 FR at 73380. BZX also notes that the Index Provider provides certain quality assurance mechanisms with respect to “crypto price validation” based on current market conditions, internal system processes, and other assessments. See id.

<sup>92</sup> See id. at 73378.

<sup>93</sup> See id.

Share.<sup>94</sup> As such, BZX argues that, even if the price used to value the Trust's bitcoin is manipulated, the ratio of bitcoin per Share does not change, and the Trust will either accept (for creations) or distribute (for redemptions) the same number of bitcoin regardless of the value.<sup>95</sup> This, according to BZX, not only mitigates the risk associated with potential manipulation, but also discourages and disincentivizes manipulation of the Index because there is little financial incentive to do so.<sup>96</sup>

Based on assertions made and the information provided, the Commission can find no basis to conclude that BZX has articulated other means to prevent fraud and manipulation that are sufficient to justify dispensing with the requisite surveillance-sharing agreement. First, the record does not demonstrate that the proposed methodology for calculating the Index would make the proposed ETP resistant to fraud or manipulation such that a surveillance-sharing agreement with a regulated market of significant size is unnecessary. Specifically, BZX has not assessed the possible influence that spot platforms not included among the Index's underlying bitcoin platforms would have on the "principal market" that is used to calculate the Index.<sup>97</sup> And as discussed above, the record does not establish that the broader bitcoin market is inherently and uniquely resistant to fraud and manipulation. Accordingly, to the extent that trading on platforms not directly used to calculate the Index affects prices on the Index's underlying bitcoin

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<sup>94</sup> See id.

<sup>95</sup> See id.

<sup>96</sup> See id.

<sup>97</sup> As discussed above, while BZX asserts that bitcoin prices on platforms with wash trades or other activity intended to manipulate the price of bitcoin do not influence the real price of bitcoin, the Commission has no basis on which to conclude that bitcoin platforms are insulated from prices of others that engage in or permit fraud or manipulation. See supra notes 72-73 and accompanying text.

platforms, the characteristics of those other platforms—where various kinds of fraud and manipulation from a variety of sources may be present and persist—may affect whether the Index is resistant to manipulation.

Moreover, BZX’s assertions that the Index’s methodology helps make the Index resistant to manipulation are contradicted by the Registration Statement’s own statements. Specifically, the Registration Statement states, among other things, that “[s]pot markets on which bitcoin trades are relatively new and largely unregulated, and, therefore, may be more exposed to fraud and security breaches than established, regulated exchanges for other financial assets or instruments”; and that “[t]he potential consequences of a spot market’s failure or failure to prevent market manipulation could adversely affect the value of the Shares[,] . . . [t]he blockchain infrastructure could be used by certain market participants to exploit arbitrage opportunities through schemes such as front-running, spoofing, pump-and-dump and fraud across different systems, platforms or geographic locations” . . . and “[a]s a result of reduced oversight, these schemes may be more prevalent in digital asset markets than in the general market for financial products.”<sup>98</sup> The Index’s underlying bitcoin platforms are a subset of the bitcoin trading venues currently in existence.

The Registration Statement also states, specifically with respect to the Index, that “[p]ricing sources used by the Index are digital asset spot markets that facilitate the buying and selling of bitcoin and other digital assets” and that “[a]lthough many pricing sources refer to themselves as ‘exchanges,’ they are not registered with, or supervised by, the [Commission] or [Commodity Futures Trading Commission] and do not meet the

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<sup>98</sup> See Registration Statement at 12-13, 32.

regulatory standards of a national securities exchange or designated contract market,” and “[f]or these reasons, among others, purchases and sales of bitcoin may be subject to temporary distortions or other disruptions . . . [which] could affect the price of bitcoin used in Index calculations and, therefore, could adversely affect the bitcoin price as reflected by the Index.” The Sponsor further states in the Registration Statement that “[t]he Index is based on various inputs which include price data from various third-party bitcoin spot markets” and that “[t]he [index provider] does not guarantee the validity of any of these inputs, which may be subject to technological error, manipulative activity, or fraudulent reporting from their initial source.”<sup>99</sup> Moreover, the Exchange describes a process through which the Data Provider may select an “alternative primary market” upon detection or referral of suspect manipulative activities.<sup>100</sup> And, although the Sponsor raises concerns regarding fraud and security of bitcoin platforms, as well as concerns specific to the Index’s underlying bitcoin platforms, leading to the potential need for an “alternative” basis for the Index price, the Exchange does not explain how or why such concerns are consistent with its assertion that the Index is resistant to fraud and manipulation.<sup>101</sup>

The Commission thus concludes that BZX has not demonstrated that the Index methodology makes the proposed ETP resistant to manipulation.

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<sup>99</sup> See id. at 32.

<sup>100</sup> See Amendment No. 1, 86 FR at 73380.

<sup>101</sup> One commenter states that the proposed ETP is “pegging the value to a collection of independent exchanges, who collectively, would be able to manipulate the bitcoin index by manipulation of their own forums.” See Girts Letter.



Second, BZX argues that the Data Provider has dedicated resources and has established committees to ensure all prices are representative of the market, and that any price challenges will result in an independent price analysis, which would include assessing whether the price from the selected “principal market” platform is biased according to analyses designed to recognize patterns consistent with manipulative activity.<sup>102</sup> However, the level of oversight of the Index’s underlying bitcoin platforms, whose trade flows might contribute to the Index, is not equivalent to the obligations, authority, and oversight of national securities exchanges or futures exchanges and therefore is not an appropriate substitute.<sup>103</sup> National securities exchanges are required to have rules that are “designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.”<sup>104</sup> Moreover, national securities exchanges must file proposed rules with the Commission regarding certain material aspects of their operations,<sup>105</sup> and the Commission has the authority to disapprove any such rule that is

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<sup>102</sup> See Amendment No. 1, 86 FR at 73380. BZX represents that the Data Provider has also “designed a series of automated algorithms designed to supplement the core Lukka Prime Methodology in enhancing the ability to detect potentially anomalous price activity which could be detrimental to the goal of obtaining a Fair Market Value price that is representative of the market at a point in time.” See id.

<sup>103</sup> See also USBT Order, 85 FR at 12603-05; VanEck Order, 86 FR at 64545; WisdomTree Order, 86 FR at 69328; Kryptoin Order, 86 FR at 74173.

<sup>104</sup> See 15 U.S.C. 78f(b)(5).

<sup>105</sup> 17 CFR 240.19b-4(a)(6)(i).

not consistent with the requirements of the Exchange Act.<sup>106</sup> Thus, national securities exchanges are subject to Commission oversight of, among other things, their governance, membership qualifications, trading rules, disciplinary procedures, recordkeeping, and

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<sup>106</sup> Section 6 of the Exchange Act, 15 U.S.C. 78f, requires national securities exchanges to register with the Commission and requires an exchange's registration to be approved by the Commission, and Section 19(b) of the Exchange Act, 15 U.S.C. 78s(b), requires national securities exchanges to file proposed rules changes with the Commission and provides the Commission with the authority to disapprove proposed rule changes that are not consistent with the Exchange Act. Designated contract markets ("DCMs") (commonly called "futures markets") registered with and regulated by the Commodity Futures Trading Commission ("CFTC") must comply with, among other things, a similarly comprehensive range of regulatory principles and must file rule changes with the CFTC. See, e.g., Designated Contract Markets (DCMs), CFTC, available at <http://www.cftc.gov/IndustryOversight/TradingOrganizations/DCMs/index.htm>.

fees.<sup>107</sup> The Index’s underlying bitcoin platforms, on the other hand, have none of these requirements (none are registered as a national securities exchange).<sup>108</sup>

In addition, although BZX argues that the Data Provider’s various procedures of oversight of the Index helps to identify patterns consistent with manipulative activity, the purported procedures and oversight do not represent a unique measure to resist or prevent manipulation beyond mechanisms that exist in securities or commodities markets.<sup>109</sup>

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<sup>107</sup> See Winklevoss Order, 83 FR at 37597. The Commission notes that the New York State Department of Financial Services (“NYSDFS”) has issued “guidance” to supervised virtual currency business entities, stating that these entities must “implement measures designed to effectively detect, prevent, and respond to fraud, attempted fraud, and similar wrongdoing.” See Maria T. Vullo, Superintendent of Financial Services, NYSDFS, Guidance on Prevention of Market Manipulation and Other Wrongful Activity (Feb. 7, 2018), available at <https://www.dfs.ny.gov/docs/legal/industry/il180207.pdf>. The NYSDFS recognizes that its “guidance is not intended to limit the scope or applicability of any law or regulation” (*id.*), which would include the Exchange Act. Nothing in the record evidences whether the Index’s underlying bitcoin platforms have complied with this NYSDFS guidance. Further, as stated previously, there are substantial differences between the NYSDFS and the Commission’s regulation. Anti-money laundering (“AML”) and know-your-customer (“KYC”) policies and procedures, for example, have been referenced in other bitcoin-based ETP proposals as a purportedly alternative means by which such ETPs would be uniquely resistant to manipulation. The Commission has previously concluded that such AML and KYC policies and procedures do not serve as a substitute for, and are not otherwise dispositive in the analysis regarding the importance of, having a surveillance-sharing agreement with a regulated market of significant size relating to bitcoin. For example, AML and KYC policies and procedures do not substitute for the sharing of information about market trading activity or clearing activity and do not substitute for regulation of a national securities exchange. See USBT Order, 85 FR at 12603 n.101. See also, *e.g.*, WisdomTree Order, 86 FR at 69328 n.95; Kryptoin Order, 86 FR at 74173 n.98.

<sup>108</sup> See 15 U.S.C. 78e, 78f.

<sup>109</sup> The Commission has previously considered and rejected similar arguments about the valuation of bitcoin according to a benchmark or reference price. See, *e.g.*, SolidX Order, 82 FR at 16258; Winklevoss Order, 83 FR at 37587-90; USBT Order, 85 FR at 12599-601.

Further, the oversight performed by the Data Provider of the Index's underlying bitcoin platforms is for the purpose of ensuring the accuracy and integrity of the Index.<sup>110</sup> Such oversight serves a fundamentally different purpose as compared to the regulation of national securities exchanges and the requirements of the Exchange Act. While the Commission recognizes that this may be an important function in ensuring the integrity of the Index, such requirements do not imbue either the Data Provider or the Index's underlying bitcoin platforms with regulatory authority similar to that the Exchange Act confers upon self-regulatory organizations such as national securities exchanges.<sup>111</sup>

Third, BZX does not explain the significance of the Index's purported resistance to manipulation to the overall analysis of whether the proposal to list and trade the Shares is designed to prevent fraud and manipulation. Even assuming that BZX's argument is that, if the Index is resistant to manipulation, the Trust's NAV, and thereby the Shares as well, would be resistant to manipulation, BZX has not established in the record a basis for such conclusion. That assumption aside, the Commission notes that the Shares would trade at market-based prices in the secondary market, not at NAV, which then raises the question of the significance of the NAV calculation to the manipulation of the Shares.

Fourth, BZX's arguments are contradictory. While arguing that the Index is resistant to manipulation, the Exchange simultaneously downplays the importance of the Index in light of the Trust's in-kind creation and redemption mechanism.<sup>112</sup> BZX points out that the Trust will create and redeem Shares in-kind, not in cash, which renders the

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<sup>110</sup> See supra notes 84-91 and accompanying text.

<sup>111</sup> See 15 U.S.C. 78f(b).

<sup>112</sup> See supra notes 92-96 and accompanying text.

NAV calculation, and thereby the ability to manipulate NAV, “significantly less important.”<sup>113</sup> In BZX’s own words, the Trust will not accept cash to buy bitcoin in order to create Shares or sell bitcoin to pay cash for redeemed Shares, so the price that the Sponsor uses to value the Trust’s bitcoin “is not particularly important.”<sup>114</sup> If the Index that the Trust uses to value the Trust’s bitcoin “is not particularly important,” it follows that the Index’s resistance to manipulation is not material to the Shares’ susceptibility to fraud and manipulation. As BZX does not address or provide any analysis with respect to these issues, the Commission cannot conclude that the Index aids in the determination that the proposal to list and trade the Shares is designed to prevent fraudulent and manipulative acts and practices.

Finally, the Commission finds that BZX has not demonstrated that in-kind creations and redemptions provide the Shares with a unique resistance to manipulation. The Commission has previously addressed similar assertions.<sup>115</sup> As the Commission stated before, in-kind creations and redemptions are a common feature of ETPs, and the Commission has not previously relied on the in-kind creation and redemption mechanism

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<sup>113</sup> See Amendment No. 1, 86 FR at 73378 (“While the Sponsor believes that the Index which it uses to value the Trust’s bitcoin is designed to reduce the risk of manipulation based on the methodology further described below, the fact that creations and redemptions are only available in-kind makes the manipulability of the Index significantly less important.”).

<sup>114</sup> See *id.* (concluding that “because the Trust will not accept cash to buy bitcoin in order to create new shares or, barring a forced redemption of the Trust or under other extraordinary circumstances, be forced to sell bitcoin to pay cash for redeemed shares, the price that the Sponsor uses to value the Trust’s bitcoin is not particularly important.”).

<sup>115</sup> See Winklevoss Order, 83 FR at 37589-90; USBT Order, 85 FR at 12607-08; VanEck Order, 86 FR at 64546; WisdomTree Order, 86 FR at 69329; Kryptoin Order, 86 FR at 74174; Skybridge Order, 87 FR at 3874; Wise Origin Order, 87 FR at 5533.

as a basis for excusing exchanges that list ETPs from entering into surveillance-sharing agreements with significant, regulated markets related to the portfolio's assets.<sup>116</sup>

Accordingly, the Commission is not persuaded here that the Trust's in-kind creations and redemptions afford it a unique resistance to manipulation.<sup>117</sup>

(2) Assertions That BZX Has Entered Into a Comprehensive Surveillance-Sharing Agreement with a Regulated Market of Significant Size

As BZX has not demonstrated that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices, the Commission next examines whether the record supports the conclusion that BZX has entered into a comprehensive surveillance-sharing agreement with a regulated market of significant size relating to the underlying assets. In this context, the term "market of significant size" includes a market (or group of markets) as to which (i) there is a reasonable likelihood that a person attempting to manipulate the ETP would also have to trade on that market to successfully manipulate the ETP, so that a surveillance-sharing

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<sup>116</sup> See, e.g., iShares COMEX Gold Trust, Securities Exchange Act Release No. 51058 (Jan. 19, 2005), 70 FR 3749, 3751-55 (Jan. 26, 2005) (SR-Amex-2004-38); iShares Silver Trust, Securities Exchange Act Release No. 53521 (Mar. 20, 2006), 71 FR 14969, 14974 (Mar. 24, 2006) (SR-Amex-2005-072).

<sup>117</sup> Putting aside BZX's various assertions about the nature of bitcoin and the bitcoin market, the Index, and the Shares, BZX also does not address concerns the Commission has previously identified, including the susceptibility of bitcoin markets to potential trading on material, non-public information (such as plans of market participants to significantly increase or decrease their holdings in bitcoin; new sources of demand for bitcoin; the decision of a bitcoin-based investment vehicle on how to respond to a "fork" in the bitcoin blockchain, which would create two different, non-interchangeable types of bitcoin), or to the dissemination of false or misleading information. See Winklevoss Order, 83 FR at 37585. See also USBT Order, 85 FR at 12600-01; WisdomTree Order, 86 FR at 69329 n.114; Kryptoin Order, 86 FR at 74174 n.107; Skybridge Order, 87 FR at 3872; Wise Origin Order, 87 FR at 5533 n.89.

agreement would assist in detecting and deterring misconduct, and (ii) it is unlikely that trading in the ETP would be the predominant influence on prices in that market.<sup>118</sup>

As the Commission has stated in the past, it considers two markets that are members of the ISG to have a comprehensive surveillance-sharing agreement with one another, even if they do not have a separate bilateral surveillance-sharing agreement.<sup>119</sup> Accordingly, based on the common membership of BZX and the CME in the ISG,<sup>120</sup> BZX has the equivalent of a comprehensive surveillance-sharing agreement with the CME. However, while the Commission recognizes that the CFTC regulates the CME futures market,<sup>121</sup> including the CME bitcoin futures market, and thus such market is “regulated,” in the context of the proposed ETP, the record does not, as explained further below, establish that the CME bitcoin futures market is a “market of significant size” as that term is used in the context of the applicable standard here.

- (i) Whether There is a Reasonable Likelihood That a Person Attempting to Manipulate the ETP Would Also Have to Trade on the CME Bitcoin Futures Market to Successfully Manipulate the ETP

The first prong in establishing whether the CME bitcoin futures market constitutes a “market of significant size” is the determination that there is a reasonable

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<sup>118</sup> See Winklevoss Order, 83 FR at 37594. This definition is illustrative and not exclusive. There could be other types of “significant markets” and “markets of significant size,” but this definition is an example that provides guidance to market participants. See *id.*

<sup>119</sup> See *id.* at 37580 n.19.

<sup>120</sup> See Amendment No. 1, 86 FR at 73371 n.75 and accompanying text.

<sup>121</sup> While the Commission recognizes that the CFTC regulates the CME, the CFTC is not responsible for direct, comprehensive regulation of the underlying bitcoin spot market. See Winklevoss Order, 83 FR at 37587, 37599. See also WisdomTree Order, 86 FR at 69330 n.118; Kryptoin Order, 86 FR at 74174 n.119; Skybridge Order, 87 FR at 3874 n.80; Wise Origin Order, 87 FR at 5534 n.93.

likelihood that a person attempting to manipulate the ETP would have to trade on the CME bitcoin futures market to successfully manipulate the ETP.

While BZX states that academic research supports the thesis that CME bitcoin futures pricing leads the spot market,<sup>122</sup> BZX acknowledges that the literature has presented mixed evidence. BZX states that, on the one hand, an early study by Corbet et al. (2018)<sup>123</sup> applied four metrics of price discovery to the CME, CBOE, and spot prices using data sampled on a one-minute frequency, and found that price discovery is focused on the spot market.<sup>124</sup> BZX states that, in another study, Baur and Dimpfl (2019)<sup>125</sup> use data sampled on a five-minute interval and similarly conclude that price discovery occurs in the spot market.<sup>126</sup>

BZX states that, on the other hand, a study by Kapar and Olmo (2019)<sup>127</sup> finds contradictory evidence using daily-sampled data, concluding that the CME bitcoin futures market dominates price discovery. BZX states that similarly, Akyildirim et al.

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<sup>122</sup> See Amendment No. 1, 86 FR at 73370.

<sup>123</sup> See id. at 73371 (citing S. Corbet, B. Lucey, M. Peat, & S. Vigne, Bitcoin futures—What use are they?, 172 Econ. Letters 23 (2018) (“Corbet et al.”)).

<sup>124</sup> See id. at 73371.

<sup>125</sup> See id. at 73371 (citing D. Baur & T. Dimpfl, Price discovery in bitcoin spot or futures?, 39 J. Futures Mkts. 803 (2019)).

<sup>126</sup> See id. at 73371.

<sup>127</sup> See id. at 73371 (citing B. Kapar & J. Olmo, An analysis of price discovery between Bitcoin futures and spot markets, 174 Econ. Letters 62 (2019) (“Kapar and Olmo”)).



(2019)<sup>128</sup> show that bitcoin futures play a significant role in price discovery relative to the spot market.

BZX surmises that one potential reason for the mixed evidence, according to BZX’s interpretation of Hu, Hou and Oxley (2020)<sup>129</sup>, is that “cointegration relationships may go undetected if the underlying model formulation is constrained to be time-invariant.” BZX states that, as such, Hu, Hou and Oxley “apply time-varying cointegrating coefficients” and “conclude that futures prices Granger-cause spot prices and that futures prices dominate [b]itcoin price discovery.”<sup>130</sup>

BZX further asserts that the bitcoin futures market is by orders of magnitude larger than the entire spot market of all cryptoassets in terms of traded volume, and that, according to a study by the Blockchain Lab of Massachusetts Institute of Technology: “[T]he derivative market leads price discovery of bitcoin more frequently than the spot markets. The spot market is more likely to indicate the direction of the price movement while the derivatives market is more likely to lead the magnitude of the price movement.”<sup>131</sup>

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<sup>128</sup> See id. at 73371 (citing E. Akyildirim, S. Corbet, P. Katsiampa, N. Kellard & A. Sensoy, The development of Bitcoin futures: Exploring the interactions between cryptocurrency derivatives, 34 Fin. Res. Letters 101234 (2020)).

<sup>129</sup> See id. at 73371 (citing Y. Hu, Y. Hou & L. Oxley, What role do futures markets play in Bitcoin pricing? Causality, cointegration and price discovery from a time-varying perspective, 72 Int’l Rev. of Fin. Analysis 101569 (2020) (“Hu, Hou and Oxley”)).

<sup>130</sup> See id. at 73371.

<sup>131</sup> See id. at 73372 (citing L. Eguren, B. Fondufe, C. Hogan, and C. Matthews, Price Discovery in the Bitcoin Spot and Derivatives Markets, Massachusetts Institute of Technology Blockchain Lab Program, May 15, 2020 (“Blockchain Lab Paper”), available at: <https://static1.squarespace.com/static/59aae5e9a803bb10bedeb03e/t/5fa2de64862>

BZX also asserts that the bitcoin futures market has processed more than \$1 trillion in futures volume per month since the start of the year. In November 2021, bitcoin futures volume accounted for \$1.58 trillion, while spot volume, in the same time frame, amounted to \$1.4 trillion, including both crypto-only and fiat currency volumes of all cryptoassets, not just bitcoin. In terms of volume just in the last month,<sup>132</sup> BZX asserts that the bitcoin futures market is 12% larger than the entire spot market. Over the past three months,<sup>133</sup> the average monthly spot volume was \$1.3 trillion while the average bitcoin futures volume was significantly greater (approximately 30%) than the spot at \$1.71 trillion.<sup>134</sup>

In addition, BZX contends that, in the past twelve months, the average monthly futures volume for bitcoin was \$1.89 trillion, while the monthly spot volume for all cryptoassets was \$1.24 trillion.<sup>135</sup> BZX further states that, as of December 2, 2021, the ratio of bitcoin spot versus futures volume currently stands at 0.17.<sup>136</sup> BZX concludes

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[fbd230d09033d/1604509286275/WG19-20PriceDiscoveryintheBitcoinSpot%26DerivativesMarketsComplete.pdf](https://www.fbd230d09033d/1604509286275/WG19-20PriceDiscoveryintheBitcoinSpot%26DerivativesMarketsComplete.pdf) (last visited Mar. 3, 2022)). This study was performed by MBA students at the MIT Sloan School of Management as part of the Blockchain Lab, an action-learning course offered by MIT. The study considered the relationship between unregulated spot and derivatives bitcoin markets, and which market leads the other in pricing.

<sup>132</sup> Based on the submission of Amendment No. 1 in December 2021, the Commission understands “last month” to refer to November 2021.

<sup>133</sup> Based on the submission of Amendment No. 1 in December 2021, the Commission understands “past three months” to refer to September-November 2021.

<sup>134</sup> See Amendment No. 1, 86 FR at 73372. That is, according to BZX, since the start of the year, the bitcoin futures market is 52% larger than the spot volume of all cryptoassets traded on platforms.

<sup>135</sup> See *id.*

<sup>136</sup> See *id.* Put in another way, according to BZX, the bitcoin spot market accounts for 17% of the bitcoin futures market in volume terms.

that, “where CME bitcoin futures lead the price in the spot market such that a potential manipulator of the bitcoin spot market (beyond just the constituents of the Index . . . ) would have to participate in the CME [b]itcoin [f]utures market, it follows that a potential manipulator of the Shares would similarly have to transact in the CME [b]itcoin [f]utures market.”<sup>137</sup>

The Commission disagrees. Specifically, the econometric evidence in the record for the proposal does not support the conclusion that an interrelationship exists between the CME bitcoin futures market and the bitcoin spot market such that it is reasonably likely that a person attempting to manipulate the proposed ETP would also have to trade on the CME bitcoin futures market.<sup>138</sup> While BZX concludes that CME bitcoin futures pricing leads the spot market,<sup>139</sup> BZX’s own recitation of the literature on the lead-lag relationship and price discovery between bitcoin spot and futures markets underscores that the literature is unsettled.<sup>140</sup> BZX also has not addressed issues that the Commission

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<sup>137</sup> See id.

<sup>138</sup> See USBT Order, 85 FR at 12611. Listing exchanges have attempted to demonstrate such an “interrelationship” by presenting the results of various econometric “lead-lag” analyses. The Commission considers such analyses to be central to understanding whether it is reasonably likely that a would-be manipulator of the ETP would need to trade on the CME bitcoin futures market. See id. at 12612. See also VanEck Order, 86 FR at 64547; WisdomTree Order, 86 FR at 69330-31; Kryptoin Order, 86 FR at 74176 n.144; Skybridge Order, 87 FR at 3876 n.101; Wise Origin Order, 87 FR at 5535 n.107.

<sup>139</sup> See Amendment No. 1, 86 FR at 73372.

<sup>140</sup> See supra notes 123-131 and accompanying text. See also, e.g., O. Entrop, B. Frijns & M. Seruset, The determinants of price discovery on bitcoin markets, 40 J. Futures Mkts. 816 (2020) (finding that price discovery measures vary significantly over time without one market being clearly dominant over the other); J. Hung, H. Liu & J. Yang, Trading activity and price discovery in Bitcoin futures markets, 62 J. Empirical Finance 107 (2021) (finding that the bitcoin spot market dominates price discovery); A. Fassas, S. Papadamou, & A. Koulis, Price

has raised in past disapproval orders with respect to some of the studies that BZX cites in the present proposal. Specifically, BZX has not addressed the concern that the use of daily price data by Kapar and Olmo and Hu, Hou and Oxley, as opposed to intra-day prices, may hinder the ability to distinguish which market incorporates new information faster;<sup>141</sup> or that, as stated in previous disapproval orders,<sup>142</sup> the findings of Hu, Hou and Oxley’s Granger causality analysis are concededly mixed;<sup>143</sup> or why Hu, Hou and Oxley’s inconclusive evidence that CME bitcoin futures prices lead spot prices—in particular that the months at the end of the paper’s sample period showed that the spot

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discovery in bitcoin futures, 52 Res. Int’l Bus. Fin. 101116 (2020) (finding that bitcoin futures play a more important role in price discovery); S. Aleti & B. Mizrach, Bitcoin spot and futures market microstructure, 41 J. Futures Mkts. 194 (2021) (finding that relatively more price discovery occurs on the CME as compared to four spot exchanges); J. Wu, K. Xu, X. Zheng & J. Chen, Fractional cointegration in bitcoin spot and futures markets, 41 J. Futures Mkts. 1478 (2021) (finding that CME bitcoin futures dominate price discovery). See also C. Alexander & D. Heck, Price discovery in Bitcoin: The impact of unregulated markets, 50 J. Financial Stability 100776 (2020) (finding that, in a multi-dimensional setting, including the main price leaders within futures, perpetuums, and spot markets, CME bitcoin futures have a very minor effect on price discovery; and that faster speed of adjustment and information absorption occurs on the unregulated spot and derivatives platforms than on CME bitcoin futures) (“Alexander & Heck”).

<sup>141</sup> See USBT Order, 85 FR at 12613 n.244.

<sup>142</sup> See, e.g., VanEck Order, 86 FR at 64547; WisdomTree Order, 86 FR at 69331; Kryptoin Order, 86 FR at 74176; Wise Origin Order, 87 FR at 5535.

<sup>143</sup> The paper finds that the CME bitcoin futures market dominates the spot markets in terms of Granger causality, but that the causal relationship is bi-directional, and a Granger causality episode from March 2019 to June/July 2019 runs from bitcoin spot prices to CME bitcoin futures prices. The paper concludes: “[T]he Granger causality episodes are not constant throughout the whole sample period. Via our causality detection methods, market participants can identify when markets are being led by futures prices and when they might not be.” See Hu, Hou and Oxley, supra note 129.

market was the leading market—would not indicate a shift towards prices in the spot market leading the futures market that would be expected to persist into the future.<sup>144</sup>

In addition, the Blockchain Lab Paper<sup>145</sup> does not appear to have included CME bitcoin futures in its analysis. Thus, even setting aside methodological and data issues in this unpublished paper and accepting its results at face value, the Blockchain Lab Paper’s results provide no evidence that the CME leads price discovery, or that it is reasonably likely that a would-be manipulator would have to trade on the CME to successfully manipulate the proposed ETP. According to the paper’s results, the “derivatives market” quoted by BZX as “lead[ing] price discovery of bitcoin more frequently” were unregulated derivatives markets such as OkEX and bitMEX.<sup>146</sup> The Exchange, however, proposes that the CME is the market of significant size, not OkEX, bitMEX, or any other unregulated derivatives market.

The failure to distinguish between the (regulated) CME bitcoin futures market and unregulated bitcoin derivatives markets is also prevalent in the data that BZX cites. None of the “bitcoin futures” market data that BZX provides in support of the first prong of the “market of significant size” determination is specific to the CME bitcoin futures market.

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<sup>144</sup> See USBT Order, 85 FR at 12613 n.244.

<sup>145</sup> See supra note 131.

<sup>146</sup> See also supra note 140 (citing Alexander & Heck’s finding that, in a multi-dimensional price discovery analysis, including the main price leaders within futures, perpetuals, and spot markets, CME bitcoin futures have a very minor effect on price discovery; and that faster speed of adjustment and information absorption occurs on the unregulated spot and derivatives platforms than on CME bitcoin futures).

Nor does BZX provide information establishing what portion of the total “bitcoin futures” market the CME comprises.<sup>147</sup>

Moreover, BZX does not provide results of its own analysis and does not present any other data supporting its conclusion.

BZX’s unsupported representations constitute an insufficient basis for approving this proposed rule change. The Commission thus concludes that the information that BZX provides is not a sufficient basis to support a determination that it is reasonably likely that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market to successfully manipulate the proposed ETP. Therefore, the information in the record also does not establish that the CME bitcoin futures market is a “market of significant size” with respect to the proposed ETP.

(ii) Whether It is Unlikely that Trading in the Proposed ETP Would Be the Predominant Influence on Prices in the CME Bitcoin Futures Market

The second prong in establishing whether the CME bitcoin futures market constitutes a “market of significant size” is the determination that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market.<sup>148</sup>

BZX asserts that trading in the Shares would not be the predominant force on prices in the CME bitcoin futures market (or spot market) because of the significant

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<sup>147</sup> In addition, BZX fails to address the relationship (if any) between prices on other bitcoin futures markets and the CME bitcoin futures market, the bitcoin spot market, and/or the bitcoin platforms underlying the Index, or where price formation occurs when the entirety of bitcoin futures markets, not just the CME, is considered. See VanEck Order, 86 FR at 64547-48; WisdomTree Order, 86 FR at 69331; Kryptoin Order, 86 FR at 74176; Wise Origin Order, 87 FR at 5535.

<sup>148</sup> See Winklevoss Order, 83 FR at 37594; USBT Order, 85 FR at 12596-97.

volume in the CME bitcoin futures market,<sup>149</sup> the size of bitcoin's market capitalization,<sup>150</sup> and the significant liquidity available in the spot market.<sup>151</sup> BZX also asserts that, because the Shares are created in-kind, they are "fully collateralized," and the Shares should remain close to NAV given that investors and market makers would arbitrage any significant price deviations between the price of the Shares and prices in the spot market.<sup>152</sup> BZX further provides that, according to February 2021 data, the cost to buy or sell \$5 million worth of bitcoin averages roughly 10 basis points with a market impact of 30 basis points.<sup>153</sup> For a \$10 million market order, the cost to buy or sell is roughly 20 basis points with a market impact of 50 basis points. Stated another way, BZX

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<sup>149</sup> BZX states that the CME began to offer trading in bitcoin futures in December 2017. See Amendment No. 1, 86 FR at 73366. According to BZX, nearly every measurable metric related to CME bitcoin futures contracts, which trade and settle like other cash-settled commodity futures contracts, has "trended consistently up since launch and/or accelerated upward in the past year." See id. For example, according to BZX, from October 25, 2021, through November 19, 2021, there was approximately \$2.9 billion in notional trading volume in CME bitcoin futures on a daily basis, and notional volume was never below \$1.2 billion per day. See id. at 73363. Additionally, BZX states that open interest was over \$4 billion for the entirety of the period, and at one point reached \$5.5 billion. See id. According to the Sponsor, the increase in the volume on the CME is reflected in a higher proportion of the bitcoin market share, based on the proportion of the total monthly volume of bitcoin futures traded on the CME in relation to the total spot bitcoin volume on digital asset platforms. See id. at 73367. BZX states that that proportion has increased from less than 5% at inception, to more than 20% over three and a half years. See id. at 73367-68.

<sup>150</sup> According to BZX, as of December 1, 2021, the total market cap of all bitcoin in circulation was approximately \$1.08 trillion. See id. at 73363 n.30.

<sup>151</sup> See id. at 73372.

<sup>152</sup> See id.

<sup>153</sup> See id. According to BZX, these statistics are based on samples of bitcoin liquidity in U.S. dollars (excluding stablecoins or Euro liquidity) based on executable quotes on Coinbase Pro, Gemini, Bitstamp, Kraken, LMAX Exchange, BinanceUS, and OKCoin during February 2021. See id. at 73372 n.94.

provides that a market participant could enter a market buy or sell order for \$10 million of bitcoin and only move the market 0.5 percent.<sup>154</sup> BZX further asserts that more strategic purchases or sales (such as using limit orders and executing through over-the-counter (“OTC”) bitcoin trade desks) would likely have less obvious impact on the market, which is consistent with MicroStrategy, Tesla, and Square being able to collectively purchase billions of dollars in bitcoin.<sup>155</sup> Thus, BZX concludes that the combination of CME bitcoin futures leading price discovery, the overall size of the bitcoin market, and the ability for market participants (including authorized participants creating and redeeming in-kind with the Trust) to buy or sell large amounts of bitcoin without significant market impact, will help prevent the Shares from becoming the predominant force on pricing in either the bitcoin spot or the CME bitcoin futures market.<sup>156</sup>

The Commission does not agree. The record does not demonstrate that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market. As the Commission has already addressed and rejected one of the bases of BZX’s assertion—that CME bitcoin futures leads price discovery<sup>157</sup>—it will only address below the other two bases – the overall size of, and the impact of buys and sells on, the bitcoin market.

BZX’s assertions about the potential effect of trading in the Shares on the CME bitcoin futures market and bitcoin spot market are general and conclusory, repeating the

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<sup>154</sup> See id. at 73372.

<sup>155</sup> See id.

<sup>156</sup> See id.

<sup>157</sup> See supra notes 138-146 and accompanying text.



aforementioned trade volume of the CME bitcoin futures market and the size and liquidity of the bitcoin spot market, as well as the market impact of a large transaction, without any analysis or evidence to support these assertions. For example, there is no limit on the amount of mined bitcoin that the Trust may hold. Yet BZX does not provide any information on the expected growth in the size of the Trust and the resultant increase in the amount of bitcoin held by the Trust over time, or on the overall expected number, size, and frequency of creations and redemptions—or how any of the foregoing could (if at all) influence prices in the CME bitcoin futures market. Thus, the Commission cannot conclude, based on BZX’s statements alone and absent any evidence or analysis in support of BZX’s assertions, that it is unlikely that trading in the ETP would be the predominant influence on prices in the CME bitcoin futures market.<sup>158</sup>

The Commission also is not persuaded by BZX’s assertions about the minimal effect a large market order to buy or sell bitcoin would have on the bitcoin market.<sup>159</sup> While BZX concludes by way of a \$10 million market order example that buying or selling large amounts of bitcoin would have insignificant market impact, the conclusion does not analyze the extent of any impact on the CME bitcoin futures market. Even assuming that BZX is suggesting that a single \$10 million order in bitcoin would have immaterial impact on the prices in the CME bitcoin futures market, this prong of the “market of significant size” determination concerns the influence on prices from trading

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<sup>158</sup> See VanEck Order, 86 FR at 64548-59; WisdomTree Order, 86 FR at 69332-33; Kryptoin Order, 86 FR at 74177; Skybridge Order, 87 FR at 3879; Wise Origin Order, 87 FR at 5537.

<sup>159</sup> See Amendment No. 1, 86 FR at 73372 (“For a \$10 million market order, the cost to buy or sell is roughly 20 basis points with a market impact of 50 basis points. Stated another way, a market participant could enter a market buy or sell order for \$10 million of bitcoin and only move the market 0.5%.”).

in the proposed ETP, which is broader than just trading by the proposed ETP. While authorized participants of the Trust might only transact in the bitcoin spot market as part of their creation or redemption of Shares, the Shares themselves would be traded in the secondary market on BZX and other national securities exchanges. The record does not discuss the expected number or trading volume of the Shares, or establish the potential effect of the Shares' trade prices on CME bitcoin futures prices.<sup>160</sup> For example, BZX does not provide any data or analysis about the potential effect the quotations or trade prices of the Shares might have on market-maker quotations in CME bitcoin futures contracts and whether those effects would constitute a predominant influence on the prices of those futures contracts.<sup>161</sup>

Thus, because BZX has not provided sufficient information to establish both prongs of the “market of significant size” determination, the Commission cannot conclude that the CME bitcoin futures market is a “market of significant size” such that BZX would be able to rely on a surveillance-sharing agreement with the CME to provide sufficient protection against fraudulent and manipulative acts and practices.

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<sup>160</sup> In addition, with respect to the Exchange's assertions that, because the Shares are created in-kind, they are “fully collateralized” and that the Shares should remain close to NAV because investors and market makers would arbitrage any significant price deviations between the price of the Shares and prices in the spot market (see id. at 73372), the Exchange's statement relates only to the potential connection between the Shares' trade prices and NAV. It does not speak to any potential connection between the Shares' trade prices and CME bitcoin futures prices, which is the interrelationship relevant to the second prong of the “market of significant size” determination.

<sup>161</sup> See VanEck Order, 86 FR at 64549; WisdomTree Order, 86 FR at 69333; Kryptoin Order, 86 FR at 74177; Skybridge Order, 87 FR at 3879; Wise Origin Order, 87 FR at 5537.

The requirements of Section 6(b)(5) of the Exchange Act apply to the rules of national securities exchanges. Accordingly, the relevant obligation for a comprehensive surveillance-sharing agreement with a regulated market of significant size, or other means to prevent fraudulent and manipulative acts and practices that are sufficient to justify dispensing with the requisite surveillance-sharing agreement, resides with the listing exchange. Because there is insufficient evidence in the record demonstrating that BZX has satisfied this obligation, the Commission cannot approve the proposed ETP for listing and trading on BZX.

**C. Whether BZX Has Met Its Burden to Demonstrate That the Proposal Is Designed to Protect Investors and the Public Interest**

BZX contends that, if approved, the proposed ETP would protect investors and the public interest. However, the Commission must consider these potential benefits in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act.<sup>162</sup> Because BZX has not demonstrated that its proposed rule change is designed to prevent fraudulent and manipulative acts and practices, the Commission must disapprove the proposal.

BZX asserts that access for U.S. retail investors to gain exposure to bitcoin via a transparent and U.S. regulated, U.S. exchange-traded vehicle remains limited. Specifically, BZX asserts that current options for U.S. retail investors include paying a potentially high premium (and high management fees) to buy OTC bitcoin funds, to the

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<sup>162</sup> See Winklevoss Order, 83 FR at 37602. See also GraniteShares Order, 83 FR at 43931; ProShares Order, 83 FR at 43941; USBT Order, 85 FR at 12615; WisdomTree Order, 86 FR at 69333; Valkyrie Order, 86 FR at 74163; Kryptoin Order, 86 FR at 74178; Skybridge Order, 87 FR at 3880; Wise Origin Order, 87 FR at 5537.

advantage of more sophisticated investors that are able to create shares at NAV directly with the issuing trust,<sup>163</sup> facing the technical risk, complexity, and generally high fees associated with buying spot bitcoin, purchasing shares of operating companies that they believe will provide proxy exposure to bitcoin with limited disclosure about the associated risks, or through the purchase of bitcoin futures exchange-traded funds.<sup>164</sup> BZX explains that over the past 1.5 years, U.S. investor exposure to bitcoin through OTC bitcoin funds has grown into the tens of billions of dollars and more than a billion dollars of exposure through bitcoin futures exchange-traded funds.<sup>165</sup> With that growth, so too has grown the quantifiable investor protection issues to U.S. investors through roll costs for bitcoin futures exchange-traded funds and premium/discount volatility and management fees for OTC bitcoin funds. BZX asserts that the concerns related to the prevention of fraudulent and manipulative acts and practices have been sufficiently addressed to be consistent with the Exchange Act and, as such, approving the proposal (and comparable proposals) would provide U.S. investors access to bitcoin in a regulated and transparent exchange-traded vehicle that would act to limit risk to U.S. investors by:

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<sup>163</sup> BZX states that “[t]he largest OTC Bitcoin Fund has grown its [assets under management or “AUM”] from approximately \$2.6 billion on February 26, 2020, the date on which the Commission issued the disapproval order for the United States Bitcoin and Treasury Investment Trust, to \$37.1 billion on December 1, 2021 . . . .”. See Amendment No. 1, 86 FR at 73364 n.48. According to BZX, while the price of one bitcoin has increased approximately 690% in the intervening period, the total AUM has increased by approximately 1540%, indicating that the increase in AUM was created beyond just price appreciation in bitcoin and that investors are buying shares of a fund that experiences significant volatility in its premium and discount outside of the fluctuations in price of the underlying asset. See id.

<sup>164</sup> See id. at 73364.

<sup>165</sup> See id. at 73378.

(i) reducing premium and discount volatility; (ii) reducing management fees through meaningful competition; (iii) reducing risks and costs associated with investing in bitcoin futures exchange-traded funds and operating companies that are imperfect proxies for bitcoin exposure; and (iv) providing an alternative for investors to self-custodying spot bitcoin.<sup>166</sup>

BZX states that a number of operating companies engaged in unrelated businesses have announced investments as large as \$5.3 billion in bitcoin.<sup>167</sup> BZX argues that, without access to bitcoin ETPs, retail investors seeking investment exposure to bitcoin may purchase shares in these companies in order to gain the exposure to bitcoin.<sup>168</sup> BZX contends that such operating companies, however, are imperfect bitcoin proxies and provide investors with partial bitcoin exposure paired with additional risks associated with whichever operating company they decide to purchase. BZX concludes that investors seeking bitcoin exposure through publicly traded companies are gaining only partial exposure to bitcoin and are not fully benefitting from the risk disclosures and associated investor protections that come from the securities registration process.<sup>169</sup>

BZX also states that investors in many other countries, including Canada and Brazil, are able to use more traditional exchange-listed and traded products (including

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<sup>166</sup> See id.

<sup>167</sup> See id. at 73364 n.49.

<sup>168</sup> See id.

<sup>169</sup> See id.

exchange-traded funds holding spot bitcoin) to gain exposure to bitcoin, disadvantaging U.S. investors and leaving them with more risky means of getting bitcoin exposure.<sup>170</sup>

In essence, BZX asserts that the risky nature of direct investment in the underlying bitcoin and the unregulated markets on which bitcoin and OTC bitcoin funds trade compel approval of the proposed rule change. The Commission disagrees. Pursuant to Section 19(b)(2) of the Exchange Act, the Commission must approve a proposed rule change filed by a national securities exchange if it finds that the proposed rule change is consistent with the applicable requirements of the Exchange Act—including the requirement under Section 6(b)(5) that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices—and it must

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<sup>170</sup> See id. at 73364-65. BZX represents that the Purpose Bitcoin ETF, a retail bitcoin-based ETP launched in Canada, reportedly reached \$1.2 billion in AUM as of October 15, 2021, demonstrating the demand for a North American market listed bitcoin ETP. BZX contends that the Purpose Bitcoin ETF also offers a class of units that is U.S. dollar denominated, which could appeal to U.S. investors. See id. at 73364 n.50. In addition, BZX states that investors in other countries, specifically Canada, generally pay lower fees than U.S. retail investors that invest in OTC bitcoin funds due to the fee pressure that results from increased competition among available bitcoin investment options. BZX also argues that, without an approved bitcoin ETP in the U.S. as a viable alternative, U.S. investors could seek to purchase shares of non-U.S. bitcoin vehicles in order to gain access to bitcoin exposure. BZX believes that, given the separate regulatory regime and the potential difficulties associated with any international litigation, such an arrangement would create more risk exposure for U.S. investors than they would otherwise have with a U.S. exchange-listed ETP. See id. at 73365. BZX further contends that the lack of a U.S.-listed spot bitcoin ETP is not preventing U.S. funds from gaining exposure to bitcoin—several U.S. exchange-traded funds are using Canadian bitcoin ETPs to gain exposure to spot bitcoin—and that approving this proposal “would provide U.S. exchange-traded funds with a U.S.-listed and regulated product to provide such access rather than relying on either flawed products or products listed and primarily regulated in other countries.” See id. BZX also states that regulators in other countries have either approved or otherwise allowed the listing and trading of bitcoin-based ETPs. See id. at 73365 n.51.

disapprove the filing if it does not make such a finding.<sup>171</sup> Thus, even if a proposed rule change purports to protect investors from a particular type of investment risk—such as experiencing a potentially high premium/discount by investing in OTC bitcoin funds—the proposed rule change may still fail to meet the requirements under the Exchange Act.<sup>172</sup>

Here, even if it were true that, compared to trading in unregulated bitcoin spot markets, trading a bitcoin-based ETP on a national securities exchange provides some additional protection to investors, the Commission must consider this potential benefit in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act.<sup>173</sup> As explained above, for bitcoin-based ETPs, the Commission has consistently required that the listing exchange have a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin, or demonstrate that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with the requisite surveillance-sharing agreement. The listing exchange has not met that requirement here. Therefore, the Commission is unable to find that the proposed rule change is consistent with the statutory standard.

Pursuant to Section 19(b)(2) of the Exchange Act, the Commission must disapprove a proposed rule change filed by a national securities exchange if it does not find that the proposed rule change is consistent with the applicable requirements of the

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<sup>171</sup> See Exchange Act Section 19(b)(2)(C), 15 U.S.C. 78s(b)(2)(C).

<sup>172</sup> See SolidX Order, 82 FR at 16259; VanEck Order, 86 FR at 54550-51; WisdomTree Order, 86 FR at 69344; Kryptoin Order, 86 FR at 74179; Valkyrie Order, 86 FR at 74163; Skybridge Order, 87 FR at 3881; Wise Origin Order, 87 FR at 5538.

<sup>173</sup> See supra note 162.

Exchange Act—including the requirement under Section 6(b)(5) that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices.<sup>174</sup>

For the reasons discussed above, BZX has not met its burden of demonstrating that the proposal is consistent with Exchange Act Section 6(b)(5),<sup>175</sup> and, accordingly, the Commission must disapprove the proposal.<sup>176</sup>

#### **D. Other Arguments and Comments**

The Exchange makes additional arguments in its Amendment No. 1. The Exchange argues that, based on a review of the Commission’s past approvals and disapprovals of ETPs, the applicable standard does not require the underlying commodity market to be regulated, but rather requires that the listing exchange has in place a comprehensive surveillance-sharing agreement with a regulated market of significant size related to the underlying commodity.<sup>177</sup> The Exchange states that, therefore, the CME bitcoin futures market is the proper market for the Commission to consider in determining whether the proposal is consistent with the Exchange Act.

The Commission does not disagree. As the Commission has clearly and consistently stated, an exchange that lists bitcoin-based ETPs can meet its obligation under Exchange Act Section 6(b)(5) that its rules be designed to prevent fraudulent and manipulative acts and practices by demonstrating that the exchange has a comprehensive

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<sup>174</sup> See 15 U.S.C. 78s(b)(2)(C).

<sup>175</sup> 15 U.S.C. 78f(b)(5).

<sup>176</sup> In disapproving the proposed rule change, the Commission has considered its impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

<sup>177</sup> See Amendment No. 1, 86 FR at 73361-62.



surveillance-sharing agreement with a regulated market of significant size related to the underlying or reference bitcoin assets.<sup>178</sup> As discussed in detail in Section III.B.2, the Commission has considered the Exchange’s arguments with respect to the CME bitcoin futures market, and the Commission concludes that the Exchange has failed to demonstrate that the CME bitcoin futures market is such a “market of significant size.”

The Exchange also argues that it would be inconsistent for the Commission to allow the listing and trading of exchange-traded funds registered under the Investment Company Act of 1940 (“1940 Act”) that provide exposure to bitcoin through CME bitcoin futures (“Bitcoin Futures ETFs”) while disapproving this proposal.<sup>179</sup> The Exchange asserts that, if the Commission does not deem the CME bitcoin futures market a regulated market of significant size, permitting Bitcoin Futures ETFs to list and trade would be inconsistent with the requirement under the Exchange Act that the listing and trading of the Bitcoin Futures ETFs be designed to prevent fraudulent and manipulative acts and practices as articulated in the Winklevoss Order and other disapproval orders.<sup>180</sup> The Exchange states that, while one may argue that the 1940 Act provides certain investor protections, those protections relate primarily to the composition of board of directors, limitations on leverage, and transactions with affiliates, among others, and thus do not confer additional protections to investors in relation to the underlying CME bitcoin futures market to justify different regulatory outcomes for Bitcoin Futures ETFs

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<sup>178</sup> See supra notes 12 and 13 and accompanying text. See also Wise Origin Order, 87 FR at 5539.

<sup>179</sup> See Amendment No. 1, 86 FR at 73365.

<sup>180</sup> See id.

and non-1940 Act-regulated ETPs that hold spot bitcoin.<sup>181</sup> The Exchange also adds that the largest Bitcoin Futures ETF has contracts representing about 40 percent of open interest in CME bitcoin futures, which, according to the Exchange, “seems to directly contradict” the “predominant influence” prong in establishing whether the CME bitcoin futures market constitutes a market of significant size.<sup>182</sup> The Exchange further asserts that any concerns related to preventing fraud and manipulation related to spot bitcoin ETPs would “apply equally” to the spot markets underlying the futures contracts held by a Bitcoin Futures ETF.<sup>183</sup> The Exchange concludes that the only “consistent outcome” would be approving spot bitcoin ETPs on the basis that the CME bitcoin futures market is a regulated market of significant size.<sup>184</sup>

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<sup>181</sup> See id. The Exchange further asserts that, to the extent the Commission may view differential treatment of Bitcoin Futures ETFs and non-1940 Act-registered ETPs that hold spot bitcoin as warranted based on concerns about the custody of bitcoin, that concern is mitigated to a significant degree by the custodial arrangements that the Trust has with the Custodian, which the Exchange believes are the same types of policies, procedures, and safeguards in handling spot bitcoin that the Commission has stated that broker-dealers should implement with respect to digital asset securities. The Exchange also asserts that the Custodian’s policies, procedures, and controls are consistent with industry best practices and, as a trust company chartered by the NYSDFS, the Custodian is subject to extensive regulation and has among the longest track records in the industry of providing custodial services for digital asset private keys. See id. at 73366. But see also supra note 107 (regarding the limitations of NYSDFS regulation). In addition, even if the Exchange’s assertions regarding custodial arrangements are true, as noted above, see supra note 162, the Commission must consider any such potential investor protections in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act. The Exchange has not met such requirements.

<sup>182</sup> See Amendment No. 1, 86 FR at 73366.

<sup>183</sup> See id.

<sup>184</sup> See id. The Exchange also makes additional investor protection arguments related to Bitcoin Futures ETFs, namely, that Bitcoin Futures ETFs represent a sub-optimal structure for long-term investors. The Exchange states that the cost of

The Commission disagrees with the premise of these arguments. The proposed rule change, as modified by Amendment No. 1, does not relate to a product regulated under the 1940 Act, nor does it relate to the same underlying holdings as the Bitcoin Futures ETFs. The Commission considers the proposed rule change on its own merits and under the standards applicable to it. Namely, with respect to this proposed rule change, the Commission must apply the standards as provided by Section 6(b)(5) of the Exchange Act, which it has applied in connection with its orders considering previous proposals to list bitcoin-based commodity trusts and bitcoin-based trust issued receipts.<sup>185</sup>

Comment letters also address the general nature and uses of bitcoin<sup>186</sup> and the state of regulation of bitcoin markets.<sup>187</sup> Ultimately, however, additional discussion of these topics is unnecessary, as they do not bear on the basis for the Commission's decision to disapprove the proposal.

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rolling CME bitcoin futures contracts will cause the Bitcoin Futures ETFs to lag the performance of bitcoin itself and, at over a billion dollars in assets under management, would cost U.S. investors hundreds of millions of dollars on an annual basis. The Exchange states that such rolling costs would not be required for spot bitcoin ETPs. The Exchange further states that Bitcoin Futures ETFs have grown so rapidly that they face potentially running into CME position limits, which would force a Bitcoin Futures ETF to invest in non-futures assets for bitcoin exposure and cause potential investor confusion and lack of certainty about what such Bitcoin Futures ETFs are actually holding and change the risk profile associated with such a Bitcoin Futures ETF. See id. at 73365. However, as noted above, see supra note 162, even if these assertions are true, the Commission must consider any potential investor protections of the proposal in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act. The Exchange has not met such requirements.

<sup>185</sup> See supra note 12. See also VanEck Order, 86 FR at 64552; Skybridge Order, 87 FR at 3881 n.177.

<sup>186</sup> See letter from Sam Ahn, dated August 25, 2021 ("Ahn Letter").

<sup>187</sup> See Ahn Letter.

#### **IV. CONCLUSION**

For the reasons set forth above, the Commission does not find, pursuant to Section 19(b)(2) of the Exchange Act, that the proposed rule change, as modified by Amendment No. 1, is consistent with the requirements of the Exchange Act and the rules and regulations thereunder applicable to a national securities exchange, and in particular, with Section 6(b)(5) of the Exchange Act.

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Exchange Act, that proposed rule change SR-CboeBZX-2021-051, as modified by Amendment No. 1, be, and hereby is, disapproved.

By the Commission.

**J. Matthew DeLesDernier,**

*Assistant Secretary.*

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